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The present invention relates to use of mechano-growth factor (MGF), an Insulin-like Growth Factor-I (IGF-I) isoform in the manufacture of a medicament for the treatment of neurological disorder. The MGF is capable of reducing motoneurone loss by 20% or greater in response to nerve avulsion, and effects motoneurone rescue, preferably adult motoneurone rescue. The MGF polynucleotide and polypeptide are useful in the manufacture of a medicament for the treatment of a neurological disorder,

capable

Claim 4; Page 52; 66pp; English.

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                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present invention relates to use of mechano-growth factor (MGF), an Insulin-like Growth Factor-[ (IGF-1) isoform in the manufacture of a medicament for the treatment of neurological disorder. The MGF is capable of reducing motoneurone loss by 20% or greater in response to nerve avulsion, and effects motoneurone rescue, preferably adult motoneurone rescue. The MGF polynucleotide and polypeptide are useful in the manufacture of a medicament for the treatment of a neurological disorder, including a disorder of motoneurones and/or neurodegenerative disorder, e.g., amyotrophic lateral sclerosis, spinal muscular atrophy, infantile or juvenile muscular atrophy, spinal muscular atrophy, infantile or juvenile muscular atrophy, spinal muscular atrophy, infantile or juvenile muscular atrophy, spinal muscular atrophy, and the motoneurones and for the manufacture by exposure to a continuous content of the manufacture of a motoneurone and for a medicament of the manufacture of 
                                                                            toxin, motoneurone trauma, a motoneurone lesion or nerve damage, an injury that affects motoneurones, motoneurone loss associated with aging, autosomal or sex-linked muscular dystrophy, diabetic neuropathy, autosomal or sex-linked muscular dystrophy, diabetic neuropathy, peripheral neuropathies, Alzheimer's disease and Parkinson's disease. The present sequence is alternative version of rat liver-type IGF-I isoform (I.IGF-I). The L.IGF-I protein comprises amino acid sequences encoded by nucleic acid sequence of IGF-I exons 4 and 6. Note: The present sequence is stated as being the same as SEQ ID NO: 12 shown in sequence listing (AAE02451) of the specification. However it differs at a single position
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Use of mechano-growth factor, an isoform of Insulin-like Growth Factor-I capable of reducing motoneurone loss, in the manufacture of a medicament for the treatment of neurological disorder.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IGF-I isoform;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2001-355620/37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  damage; autosomal muscular dystrophy; diabetic neuropathy; inked muscular dystrophy; peripheral neuropathy; imer's disease; Parkinson's disease; liver; L.IGF-I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COLLEGE LONDON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000WO-GB004354
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99GB-00026968
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Insulin-like Growth Factor-I; MGF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  neurological disorder; neurodegenerative disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (L.IGF-I) protein, alternative version
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RESULT 15
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The present invention relates to use of mechano-growth factor (MGF), an C Insulin-like Growth Factor-I (IGF-I) isoform in the manufacture of a medicament for the treatment of neurological disorder. The MGF is capable of reducing motoneurone loss by 20% or greater in response to nerve crescue. The MGF polymucleotide and polypeptide are useful in the manufacture of a medicament for the treatment of a neurological disorder, concluding a disorder of motoneurone and/or neurodegenerative disorder, ce.g., amyotrophic lateral sclerosis, spinal muscular atrophy, progressive spinal muscular atrophy, infantile or juvenile muscular atrophy, progressive conjumyelitis or post-polio syndrome, a disorder caused by exposure to a conjury that affects motoneurone, motoneurone lesion or nerve damage, an conjury that affects motoneurone, motoneurone loss associated with aging, autosomal or sex-linked muscular dystrophy, diabetic neuropathy, conjury that affects motoneurone, motoneurone loss associated with aging, conjury that affects motoneurone, motoneurone lesion or nerve damage, an conjury that affects motoneurone, motoneurone lesion or nerve damage, an conjury that affects motoneurone, motoneurone lesion or neuropathy, conjury that affects motoneurone that is neuropathy, conjury that affects motoneurone that is neuropathy, conjury that affects motoneurone that 
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Best Local S
Matches 86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                mechano-growth factor; neurological disorder; neurodegenerative disorder; amyotrophic lateral sclerosis; spinal muscular atrophy; muscular atrophy; poliomyelitis; post-polio syndrome; toxin; motoneurone disorder; nerve damage; autosomal muscular dystrophy; diabetic neuropathy; sex-linked muscular dystrophy; peripheral neuropathy; Alzheimer's disease; Parkinson's disease; liver; L.IGF-I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Use of mechano-growth factor, an isoform of Insulin-like Growth Factor-I capable of reducing motoneurone loss, in the manufacture of a medicament for the treatment of neurological disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Rat; IGF-I isoform; Insulin-like Growth Factor-I;
mechano-growth factor; neurological disorder; neur
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Goldspink G, Johnson
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CVRCKPTKSARSIRAQRHTDMPKTQK
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Page 58-59;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                78.6%;
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; Pred. No. 4.8e-39;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                English.
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SO

Sequence

110

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Query Match

Best Local

Similarity

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Score 494.5; Pred. No. 2.4

DB 4;

Length 110;

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Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                           growth
reduce
                                                                       The invention relates to the use of an insulin-like growth factor I (IGF I) isoform, known as mechano-growth factor (MGF), in the manufacture of medicament for treating nerve damage in the peripheral nervous system, o for treating nerve damage by localising MGF at the site of damage. The nerve damage may include severing of a nerve. The treatment may be combined with another treatment (such as a polypeptide growth factor other than MGF) that prevents or diminishes degeneration of the target organ (for example, muscle) which the damaged nerve innervates, whereby the treatment of the muscle with MGF or a polypucleotide encoding MGF prevents or diminishes degeneration. The method is useful for treating neurological disorders, preferably motorneuron disorders. These methods can reduce motoneuron loss by 20% or greater in response to nerve avulsion. This sequence represents the human MGF polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAU10559
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(EGRI-)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human mechano-growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAU10559;
                                                                                                                                                                                                                                                                                                          Claim 11; Fig 5; 65pp; English.
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                                             Sequence 110 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                           2002-055585/07.
DB; AAS16877.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         mechano-growth factor; insulin-like growth factor I; IGF-I; MGF;
rotective; nerve damage; peripheral nervous system; nerve severing;
; neurological disorder; motoneuron loss; motorneuron disorder;
                                                                                                                                                                                                                                                                                                                                                         insulin-like growth factor-I (IGF-I) isoform known as mechano factor which is encoded by IGF-I exons 4,5,6 and has ability to motoneurone loss in response to nerve avulsion, to treat nerve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EAST
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CVRCKPTKSARSIRAQRHTDMPKTQKSQPLSTHKKRKLQRRRKGSTLEEHK 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GPETICGAELVDALQFVCGDRGFYFNKFTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GRINSTEAD MEDICAL RES TRUST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         protein; 110
82.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (MGF) polypeptide
Score 494.5; DB 5;
Pred. No. 2.4e-41;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2.4e-41;
ches 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
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GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY GPETLCGAELVDALQFVCGPRGFYFNKPTVYGSSIRRAPQTGIVDECCFRSCDLRRLEMY

60

Query Match Best Local S

Similarity

82.6%;

Conservative

2

Score 494.5; DB 7; Pred. No. 2.4e-41; 2; Mismatches 13;

110; ۲.

Gaps

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RESULT 13
ABR63167
ID ABR63
AC ABR63
AC ABR63
AC ABR63
AX BAG63
AX BAG64
AX Mecha
KW Splic
XX Homo
XX Homo
XX Homo
XX WO200
AX WO1-FI
AX O7-FI
AX O
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                                                         The present sequence is that of the C-terminal end of novel human mechano growth factor (MGF), encoded by exons 3-6 of the IGF-I gene. MGF is a splice variant and non-liver type isoform of insulin-like growth factor (IGF-I) that is activated in response to cardiac tissue damage and which has a repair function in the ischaemic and/or overloaded heart. The human MGF transcript has a 49 base insert in the 3 domain that alters the reading frame and hence the C-terminal end of MGF protein in comparison with other IGF-I splice variants. The invention provides use of a MGF polypeptide or polynucleotide in the manufacture of a medicament for the prevention or limiting tool to the prevention or limitation of myocardial damage in response to ischaemia or the myocardium. The MGF polypeptide, polynucleotide or medicament is also useful for administration in response to a heart attack
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Use of Mechano Growth Factor polypeptide or polynucleotide for preventing or limiting apoptosis in the myocardium, particularly for preventing or limiting myocardial damage in response to ischemia or mechanical overload
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mechano growth factor; MGF; insulin-like growth factor 1; human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABR63167;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABR63167
   Sequence 110 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 5; Fig 7; 74pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Goldspink G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     07-FEB-2002; 2002GB-00002906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  06-FEB-2003; 2003WO-GB000537
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     splice variant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human mechano growth factor
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GPETLCGAELVDALOFVCGPRGFYFNKPTVYGSSIRRAPQTGIVDECCFRSCDLRRLEMY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Goldspink P;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cardiant; vasotropic; gene therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protein;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
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RESULT 10
AAW23301
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Best Local :
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apoptosis i
medicament
               A use of insulin like growth factor I (IGF-1) has been developed, and is characterised by the presence of the Ec peptide, or a functional equivalent, in the treatment or therapy of a human or animal. The IGF-1 polypeptide can be used to treat muscular disorders, e.g. Duchenne or Becker muscular dystrophy, autosomal dystrophies and related progressive skeletal muscle weakness and wasting, muscle atrophy in ageing humans, spinal cord injury induced muscle atrophy and neuromuscular diseases, and cardiac disorders, e.g. diseases where promotion of cardiac muscle protein synthesis is a beneficial treatment, cardiomyopathies and acute heart failure or insult, specifically myocarditis or myocardial infarction. It can also be used to promote bone fracture healing and maintenance of bone in old age. The present sequence represents rabbit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI;
                                                                                                                                                                                                                                                                                                                                          Disclosure; Fig 3; 33pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                peptide -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Goldspink
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11-MAR-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11-MAR-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18-SEP-1997
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        neuromuscular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Insulin like
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Rabbit insulin like growth factor 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14-APR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAW23301;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (UNLO ) ROYAL
                                                                                                                                                                                                                                                                                                                                                                                   of insulin like growth factor I characterised by presence of Ectide - to treat humans or animals, particularly muscle disorders rt conditions or neuromuscular diseases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1997-470877/43
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in the present specification
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                growth factor 1; IGF-1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ą,
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Pred. No. 4.4e-43;
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맑 Ś 뮍 8

Query Match

Score

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DB 2

Length 121;

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RESULT 11
AAE02447
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity Matches 96; Conserv
                                                                                                                                              avulsion, and effects motoneurone rescue, presently with the rescue. The MGF polynucleotide and polypeptide are useful in the manufacture of a medicament for the treatment of a neurological disorder including a disorder of motoneurones and/or neurodegenerative disorder, e.g., amyotrophic lateral sclerosis, spinal muscular atrophy, progressispinal muscular atrophy, infantile or juvenile muscular atrophy, spinal muscular atrophy, infantile or juvenile muscular atrophy, progressispinal muscular atrophy, a disorder caused by exposure to poliomyelities or post-polio syndrome, a disorder caused by exposure to
                                                                                                                                                                                                                                                                          The present invention relates to use of mechano-growth factor (MGF), an Insulin-like Growth Factor-[(IGF-1) isoform in the manufacture of a medicament for the treatment of neurological disorder. The MGF is capable of reducing motoneurone loss by 20% or greater in response to nerve avulsion, and effects motoneurone rescue, preferably adult motoneurone avulsion, and effects motoneurone rescue, preferably adult motoneurone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          amyotrophic lateral sclerosis; spinal muscular atrophy; muscular policymyelitis; post-polic syndrome; toxin; mortoneurone disorder; nerve damage; autosomal muscular dystrophy; diabetic neuropathy; sex-linked muscular dystrophy; peripheral neuropathy; Alzheimer's disease; Parkinson's disease.
                                                toxin, motoneurone trauma, a motoneurone lesion or nerve damage, an injury that affects motoneurones, motoneurone loss associated with aging, autosomal or sex-linked muscular dystrophy, diabetic neuropathy, peripheral neuropathies, Alzheimer's disease and Parkinson's disease. The present sequence is human IGF-I isoform MGF. MGF is a muscle isoform having extracellular (Ec) domain, hence also referred as IGF-I-Ec. The
                                                                                                                                                                                                                                                                                                                                                                                          Claim
                                                                                                                                                                                                                                                                                                                                                                                                                            Use of mechano-growth factor, an isoform of Insulin-like capable of reducing motoneurone loss, in the manufacture for the treatment of neurological disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Goldspink G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            15-NOV-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          mechano-growth factor; neurological
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human; IGF-I isoform; Insulin-like Growth Factor-I;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10-AUG-2001
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                MGF protein comprises amino acid sequences encoded by nucleic acid sequence of IGF-I exons 4, 5 and 6 in the reading frame of MGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (UNIO ) UNIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IGF-I
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                                                                                                                                                                                                                                                                                                                                                                                            Page 50-51; 66pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAPLKPAKAARSVRAQRHTDMPKTQKYQPPSTNKKMKSQRRRKGSTFEEHK 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CVRCKPTKSARSIRAORHIDMPKTOKSOPLSTHKKRKLORRRKGSTLEEHK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GPETICGAELVDALQFVCGPRGFYFNKPTVYGSSIRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  isoform mechano-growth factor (MGF)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COLLEGE LONDON
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Johnson
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 protein;
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                                                                                                                                                                                                                                                                                                                                                                                            English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pred. No. 4.8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        disorder; neurodegenerative disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         . 4.8e-43;
12;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MGF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Growth Factor-I, of a medicament
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
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                                                                                                                                                                                                                                        disorder,
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RESULT 8
AAU10561
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              including a disorder of motoneurones and/or neurodegenerative disorder, e.g., amyotrophic lateral sclerosis, spinal muscular atrophy, progressive spinal muscular atrophy, infantile or juvenile muscular atrophy, progressive policy atrophy, infantile or juvenile muscular atrophy, progressive policy spinal muscular atrophy, infantile or juvenile muscular atrophy, at toxin, motoneurone trauma, a motoneurone loss associated with aging, an injury that affects motoneurones, motoneurone loss associated with aging, autosomal or sex-linked muscular dystrophy, diabetic neuropathy, peripheral neuropathies, Alzheimer's disease and Parkinson's disease. The present sequence is rabbit IGF-I isoform MGF MGF is a muscle isoform having extracellular (EQ) domain, hence also referred as IGF-IEC. The MGF protein comprises amino acid sequences encoded by nucleic acid sequence of IGF-I exons 4, 5 and 6 in the reading frame of MGF
                                                                           Use of insulin-like growth factor-I (IGF-I) isoform known as mechano growth factor which is encoded by IGF-I exons 4,5,6 and has ability to reduce motoneurone loss in response to nerve avulsion, to treat nerve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Rabbit; mechano-growth factor; insulin-like growth factor I; IGF-I; MGF; neuroprotective; nerve damage; peripheral nervous system; nerve severing; muscle; neurological disorder; motoneuron loss; motorneuron disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAU10561 standard; protein; 111
  Claim 11; Fig
                                                                                                                                                                                         N-PSDB;
                                                                                                                                                                                                                  WPI; 2002-055585/07.
                                                                                                                                                                                                                                                                     Goldspink G,
                                                                                                                                                                                                                                                                                                                       (UNLO )
                                                                                                                                                                                                                                                                                                                                                                                                                                                        10-MAY-2001;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Rabbit mechano-growth
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local
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                                                                                                                                                                                                                                                                                                                          EAST
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GPETICGAELVDALQFVCGPRGFYFNKPTVYGSSIRRAPQTGIVDECCFRSCDLRRLEMY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAPLKPAKAARSVRAQRHTDMPKTQKYQPPSTNKKMKSQRRRKGSTFEEHK 111
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                                                                                                                                                                                                                                                                                                                    COLLEGE LONDON.
GRINSTEAD MEDICAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                        2001WO-GB002054
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
7; 65pp; English.
                                                                                                                                                                                                                                                                  Terenghi G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     85.5%;
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Pred. No. 4.4e-43;
3; Mismatches 12
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The invention relates to the use of an insulin-like growth factor I (IGF-I) isoform, known as mechano-growth factor (MGF), in the manufacture of a medicament for treating nerve damage in the peripheral nervous system, or for treating nerve damage by localising MGF at the site of damage. The

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RESULT 9
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The present sequence is that of the C-terminal end of novel rabbit mechano growth factor (MGF), encoded by exons 3-6 of the IGF-I gene. MGF is a splice variant and non-liver type isoform of insulin-like growth factor (IGF-I) that is activated in response to cardiac tissue damage and which has a repair function in the ischaemic and/or overloaded heart. The rabbit MGF transcript has a 52 base insert in the E domain that alters the reading frame and hence the C-terminal end of MGF protein in comparison with other IGF-I splice variants. The invention provides use of a MGF polypeptide or polynucleotide in the manufacture of a medicament for the prevention or limitation of myocardial damage in response to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   combined with another treatment (such as a polypeptide growth factor other than MGF) that prevents or diminishes degeneration of the target organ (for example, muscle) which the damaged nerve innervates, whereby the treatment of the muscle with MGF or a polynucleotide encoding MGF prevents or diminishes degeneration. The method is useful for treating neurological disorders, preferably motorneuron disorders. These methods can reduce motoneuron loss by 20% or greater in response to nerve avulsion. This sequence represents the rabbit MGF polypeptide
                                                                                                                                                                                                                            Use of Mechano Growth Factor polypeptide or polynucleotide for preventing or limiting apoptosis in the myocardium, particularly for preventing or limiting myocardial damage in response to ischemia or mechanical overload of the heart.
                                                                                                                                                                                                                                                                                                                                 WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mechano growth factor; MGF; insulin-like growth factor 1; rabbit; splice variant; cardiant; vasotropic; gene therapy.
                                                                                                                                                                                        Claim 5; Fig 9; 74pp; English.
                                                                                                                                                                                                                                                                                                                 N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     06-FEB-2003; 2003WO-GB000537.
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                                                                                                                                                                                                                                                                                                                                                              Goldspink G,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            nerve damage may include severing of a nerve. The treatment may be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local
                                                                                                                                                                                                                                                                                                                 2003-636936/60.
DB; ACF79637.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GPETLCGAELVDALOFVCGDRGFYFNKFTGYGSSSRRAFQTGIVDECCFRSCDLRRLEMY
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                                                                                                                                                                                                                                                                                                                                                                Goldspink
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Pred. No. 4.4e-43;
3; Mismatches 12
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The invention discloses a composition comprising two or more isolated rat or human polynucleotides or a polynucleotide which represents a fragment, and carrivative or allelic variation of the nucleic acid sequence. Also claimed are a vector comprising the novel polynucleotide, a host cell comprising the vector, a method for identifying a nucleotide sequence which is differentially regulated in an animal subjected to pain and a kit to perform the method, an array, a method for identifying an agent that increases or decreases the expression of the polynucleotide sequence that is differentially expressed in neuronal tissue of a first animal cubjected to pain, a method for identifying a compound which regulates the expression of a polynucleotide sequence which is differentially expressed in neuronal tissue of a first animal compound that regulates the activity of one or more of the polynucleotides, a method for identifying a plarmaceutical composition, a method for identifying a method for identifying a polynucleotides, a method for polynucleotides, a method for polynucleotide sequence which is differentially expressed in an animal of one or more of the polynucleotides, a method for identifying a pharmaceutical composition, a method for identifying a compound useful in the specification, a method for identifying a compound useful in treating specification, a method for identifying a compound useful in treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local S
Matches 101
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01-NCV-2001; 2001US-0346382P
26-NCV-2001; 2001US-0333347P
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(FARB
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 1; Page; 1017pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            preparing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENBANK; P08024.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14-AUG-2002; 2002WO-US025765
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CVRCKPTKSARSIRAQRHTDMPKTQKSQPLSTHKKRKLQRRKGSTLEEHK 111
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         two or more isolated polypeptides, useful for treating pain in an animal.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gene therapy; spinal segmental nerve injury;
; CCI; spared nerve injury; SNI; Chung.
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Pred. No. 1.8e-45;
2; Mismatches 8
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                                                                               pain and a pharmaceutical composition comprising the one or more polypeptides or their antibodies. The polypuclectide or the compound that modulates its activity is useful for preparing a medicament for treating pain (e.g. spinal segmental nerve injury (Chung), chronic constriction injury (CCI) and spared nerve injury (SNI) in an animal (e.g. gene therapy). The sequence presented is a rat protein (shown in Table 2 of the specification) which is differentially expressed during pain. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic form directly from WIPO at
                                                    ftp.wipo.int/pub/published_pct_sequences.
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Sequence 181 AA;

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Matches 100;
                                                                                                   Query Match
Best Local (
109
                      61
                                             49
                                                                   Similarity
                                                             GPETLCGAELVDALQFVCGPRGFYFNKPTVYGSSIRRAPQTGIVDECCFRSCDLRRLEMY
                    CVRCKPTKSARSIRAQRHTDMPKTQKSQPLSTHKKRKLQRRRKGST
CAPLKPTKSARSIRAQRHTDMPKTQKSQPLSTHKKRKLQRRRKGES
                                             GPETLCGAELVDALQFVCGPRGFYFNKPTGYGSSIRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                           Conservative
                                                                                                   89.5%;
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                                                                                                   Score
Pred.
                                                                                           Mismatches
                                                                                                   1536; DB 7;
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 154
                        106
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RESULT 7 AAE02449 standard; protein; 111 8

10-AUG-2001 (first entry)

AAE02449;

Rabbit IGF-I isoform mechano-growth factor (MGF)

amyotrophic lateral sclerosis; spinal muscular atrophy; muscular poliomyelitis; post-polio syndrome; toxin; motoneurone disorder; nerve damage; autosomal muscular dystrophy; diabetic neuropathy; sex-linked muscular dystrophy; peripheral neuropathy; Alzheimer's disease; Parkinson's disease. Rabbit; IGF-I isoform; Insulin-like Growth Factor-I; MGF; mechano-growth factor; neurological disorder; neurodegene disorder; neurodegenerative disorder; atrophy;

Oryctolagus cuniculus

WO200136483-A1

25-MAY-2001.

15-NOV-2000; 2000WO-GB004354

15-NOV-1999; 99GB-00026968

(UNLO) UNIV COLLEGE LONDON

Goldspink G, Johnson

N-PSDB; AAD06400. WPI; 2001-355620/37

Use of mechano-growth factor, an isoform of Insulin-like capable of reducing motoneurone loss, in the manufacture for the treatment of neurological disorder. Growth Factor-I, of a medicament

Claim 4; Page 54; 66pp; English.

The present invention relates to use of mechano-growth factor (MGF), Insulin-like Growth Factor-I (IGF-I) isoform in the manufacture of a medicament for the treatment of neurological disorder. The MGF is ca of reducing motoneurone loss by 20% or greater in response to nerve avulsion, and effects motoneurone rescue, preferably adult motoneuro rescue. The MGF polynucleotide and polypeptide sponse to nerve adult motoneurone The MGF is capable an

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                      The present sequence is the protein sequence of murine insulin-like growth factor 1B (IGF-IB). IGF-IB cDNA was used in an example of the method of the invention to generate probes for determination of IGF-IB cNAA. The method comprises a quantitative hybridisation assay for analysis of mRNA, in a target nucleic acid (TNA) sample. It involves: (i) analysis of mRNA in a target nucleic acid (TNA) sample. It involves: (i) alabelled antisense probe to a scind support; (ii) contacting a contacting a contacting and contacting the signals generated from the hybridised probes; and (iv) contacting the signals generated from the hybridised probes; and (iv) contacting the value being proportional to the amount of mRNA in the TNA sample. In an example of the method, a cDNA clone containing 60 nucleotides from exon 2 and 179 nucleotides from exon 3 of the mouse IGF-CONTACTION of a contaction with Hindric allowed transcription of a sense contaction with Hindric allowed transcription of a sense probe of similar length using SP6 polymerase (see ABV76186). The probes were purified and used to determine IGF-I RNA in mouse hepatocytes and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
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were purified and used to determine also in rat hepatocytes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Quantitating a target nucleic acid in a sample comprises immobilizing, on a solid support, a sample comprising a target nucleic acid, and detecting and quantitating signals generated from the antisense and sense probes.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Example 1; Page 17; 18pp; English.
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DB; ABV76185.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GPETLCGAELVDALQFVCGFRGFYFNKPTVYGSSIRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           growth factor IB; IGF-IB; mouse; mRNA; assay; detection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%;
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Pred. No. 1.1e-51;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
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The present invention describes an isolated peptide capable of acting as a ligand for an antibody with affinity for the C-terminus of mechanocce growth factor (MGF), for use in therapy, where the peptide is not MGF. CC Also described is an isolated peptide for use in therapy comprising the sequence (I) (X1)m(X2)n(X3)G(X4)(X5)(X6)(X7)(X8)p, where X1 = basic CC residue, X2 and X8 = any amino acid, X3 and X4 = Lys or Gln, X5 = Ser, CC Thr, Ala or Pro, X6 = Ile, phe or Leu, X7 = Asp or Glu, m = 2 or 3, n = .0 cc used in cell signaling (I) can be used for the manufacture of a cc used in cell signaling (I) can be used for the manufacture of a composition for the treatment of muscle damage, deterioration or injury, or cd damage to cardiac muscle, and to manufacture a composition for the repair of damage or loss of nerve cells. The peptide can be used in cell culture media to promote growth of muscle or nerve cell lines. The peptides are cused to treat conditions associated with muscle fatigue and/or injury for example during exercise, and to treat muscle deterioration or damage for example after a heart attack. They may be useful to identify agents that promote growth or repair of muscle or nerve cells in vivo and to inhibit composition of precursor cells. The present sequence represents a mouse MGF appotosis of precursor cells. The present sequence represents a mouse MGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
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Best Local Similarity
Matches 101; Conser
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New peptides corresponding to the C terminus of creatine kinase have similar function to mechano-growth factor and are useful to treat mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ligand; antibody; mechano-growth factor; NGF; inotropic; cardiant; cell signaling; muscle damage; muscular dystrophy; cardiac muscle damage; muscle fatigue; heart attack.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure; Fig 1; 21pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2003-679637/64.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           damage such as exercise injury, muscular dystrophy and heart attack
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAPLKPTKAARSIRAORHTDMPKTOKSPSLSTNKKTKLORRRKGSTFEEHK 133
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Best Local Simi
Matches 111;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         toxin, motoneurone trauma, a motoneurone lesion or nerve damage, an injury that affects motoneurones, motoneurone loss associated with aging, autosomal or sex-linked muscular dystrophy, diabetic neuropathy, peripheral neuropathies, Alzheimer's disease and Parkinson's disease. The present sequence is rat IGF-I isoform MGF. MGF is a muscle isoform having extracellular (Ec) domain, hence also referred as IGF-I-Ec. The MGF protein comprises amino acid sequences encoded by mucleic acid sequence of IGF-I exons 4, 5 and 6 in the reading frame of MGF
The invention relates to the use of an insulin-like growth f I) isoform, known as mechano-growth factor (MGF), in the man medicament for treating nerve damage in the peripheral nerve for treating nerve damage by localising MGF at the site of d nerve damage may include severing of a nerve. The treatment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       including a disorder of motoneurones and/or neurodegenerative disorder, e.g., amyotrophic lateral sclerosis, spinal muscular atrophy, progressive spinal muscular atrophy, infantile or juvenile muscular atrophy poliomyelitis or post-polio syndrome, a disorder caused by exposure to a
                                                                                                                                     Claim 11;
                                                                                                                                                                                                                                                                                                                                                             Goldspink
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200185781-A2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10-MAY-2001; 2001WO-GB002054.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15-NOV-2001
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muscle; neurological disorder;
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oprotective; nerve damage; peripheral nervous system; nerve sever
le; neurological disorder; motoneuron loss; motorneuron disorder;
                                                                                                                                                                                                                                                                                           2002-055585/07.
)B; AAS16878.
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                                                                                                                                                                                                    insulin-like growth factor-I (IGF-I) isoform known as mechano factor which is encoded by IGF-I exons 4,5,6 and has ability to motoneurone loss in response to nerve avulsion, to treat nerve
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GPETICGAELVDALQFVCGPRGFYFNKPTVYGSSIRRAPQTGIVDECCFRSCDLRRLEMY
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                                                                                                                                   Fig
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ilarity 100.0%;
Conservative
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                                                                                                                                     English
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Pred. No. 1.1e-51;
; Mismatches 0;
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                       an insulin-like growth factor I (Ingress of factor (MGF), in the manufacture of factor the stipheral nervous system, of any MGF at the site of damage. The
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may be

The present sequence is that of the C-terminal end of novel rat mechano growth factor (MGF), encoded by exons 3-6 of the IGF-I gene. MGF is a splice variant and non-liver type isoform of insulin-like growth factor (IGF-I) that is activated in response to cardiac tissue damage and which has a repair function in the ischaemic and/or overloaded heart. The rat MGF transcript has a 52 base insert in the E domain that alters the reading frame and hence the C-terminal end of MGF protein in comparison with other IGF-I splice variants. The invention provides use of a MGF polypeptide or polymucleotide in the manufacture of a medicament for the prevention or limitation of myocardial damage in response to ischaemia or the provided or the control of myocardial damage in response to ischaemia or the provided or the control of myocardial damage in response to ischaemia or the provided or the control of the c

of the heart by preventing or limiting apoptosis

ij

Claim 5; Fig 8;

74pp;

English.

Use of Mechano Growth Factor polypeptide or polynucleotide for preventing or limiting apoptosis in the myocardium, particularly for preventing or limiting myocardial damage in response to ischemia or mechanical overload of the heart.

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RESULT 3
ABR63168
ADR65168
ADR65168
ADR ABR6
AXX ABR6
AXX ABR6
AXX Mech
KW Mech
AXX UNI
AXX UN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2003-636936/60
N-PSDB; ACF79636.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Goldspink G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            07-FEB-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              06-FEB-2003;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Rattus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mechano growth factor; MGF; insulin-like growth factor 1;
splice variant; cardiant; vasotropic; gene therapy.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CVRCKPTKSARSIRAQRHTDMPKTQKSQPLSTHKKRKLQRRRKGSTLEEHK 111
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          protein;
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Pred. No. 1.1e-51;
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COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/953,230A
FILING DATE: 30-SEP-1992
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Crane-Feury, Sharon E
REGISTRATION NUMBER: 36,113
REFERENCE/DOCKET NUMBER: 028755-010
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 836-2021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
LENGTH: 78 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide
US-08-462-040-47
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US-07-953-230A-9
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GENERAL INFORMATION:
TELEFAX: (703) 836-2021
INFORMATION FOR SEQ ID NO: 9:
SEQUENCE CHARACTERISTICS:
LENGTH: 176 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 61.3%;
Best Local Similarity 87.0%;
Matches 67; Conservative 3
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FILING DATE: March 20, 1992
APPLICATION NUMBER: PCT/US93/02725
FILING DATE: March 19, 1993
ATTORNEY/AGENT INFORMATION:
NAME: Warburg, Richard J.
REGISTRATION NUMBER: 32,327
REFERENCE/DOCKET NUMBER: 212/078
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INFORMATION FOR SEQ ID NO:
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TELEPHONE: (213) 489-1600
TELEFAX: (213) 955-0440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: CHEN, Thomas T
APPLICANT: SHAWBLOTT, Michael J
APPLICANT: SHAWBLOTT, Michael J
TITLE OF INVENTION: INSULIN-LIKE GROWTH FACTORS ISOLATED
TITLE OF INVENTION: FROM RAINBOW TROUT
NUMBER OF SEQUENCES: 12
CORRESSPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADDRESSEE: Burns, Doane, Swecker & Mathie STREET: George Mason Bldg., Washington & Prince Sts. CITY: Alexandria STATE: Virginia COUNTRY: United States ZIP: 22313-1404
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Best Local (
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SOFTWARE: FASCSEQ for Windows 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/167,641C
FILING DATE: December 14, 1993
CLASSIFICATION LATA:
APPLICATION NUMBER: 07/855,389
FILING DATE: MARCH 20, 1992
APPLICATION NUMBER: DCT/US93/02725
APPLICATION TORNATION:
NUMBER: DCT/US93/02725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEX: 67-3510
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 78 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGTH: 78 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide
                                                      COMPUTER: READABLE FORM:
MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
MEDIUM TYPE: storage
COMPUTER: IBM Compatible
COMPUTER: IBM Compatible
COMPUTER: TOWN DOOR 5.0
                                                                                                                                                                                                                                                                                                                                              APPLICANT: Woo, Savio L.C.
APPLICANT: Smith, Louis C.
APPLICANT: Cristiano, Richard J.
APPLICANT: Gottchalk, Stephen
TITLE OF INVENTION: NUCLEIC ACID TRANSPORTER SYSTEMS AND
TITLE OF INVENTION: METHODS OF USE
NUMBER OF SEQUENCES: 65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME: Warburg, Richard J.
REGISTRATION NUMBER: 32,327
REFERENCE/DOCKET NUMBER: 205/012
TELECOMMUNICATION INFORMATION:
TELEPHONE: (213) 489-1600
                                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS
OPERATING SYSTEM: IBM P.C. DOS 5.0 SOFTWARE: FastSEQ for Windows 2.0 TURRENT APPLICATION DATA:
                                                                                                                                                                                                      ADDRESSEE: Lyon & Lyon
STREET: 633 West Fifth Street
STREET: Suite 4700
CITY: Los Angeles
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              / Match 61.3%;
Local Similarity 87.0%;
les 67; Conservative
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MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
MEDIUM TYPE: storage
                                                                                                                                                                  COUNTRY: U.S.A. ZIP: 90071-2066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEPHONE: (213) 955-0440
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Application US/08460971A
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                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
APPLICANT: Woo, Sa
APPLICANT: Smith,
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TELEX: 67-3510
INFORMATION FOR SEQ ID NO:
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
MEDIUM TYPE: Storage
COMPUTER: IBM Compatible
OPERATING SYSTEM: IBM P.C. DOS 5.0
SOPTWARE: PastSEQ for Windows 2.0
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                             APPLICANT: Cristiano, Richard J.
APPLICANT: Gottchalk, Stephen
TITLE OF INVENTION: NUCLEIC ACID TRANSPORTER SYSTEMS AND
TITLE OF INVENTION: METHODS OF USE
NUMBER OF SEQUENCES: 65
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: Warburg, Richard J.
REGISTRATION NUMBER: 32,327
REFERENCE/DOCKET NUMBER: 217
TELECOMMUNICATION INFORMATION:
TELEPHONE: (213) 489-1600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: December 14, 1993
APPLICATION NUMBER: 07/855,389
FILING DATE: March 20, 1992
APPLICATION NUMBER: PCT/US93/02
FILING DATE: March 19, 1993
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
LENGTH: 78 amino acids
TYPE: amino acid
STRANDEDNESS: single
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                                                                                                                                                         ADDRESSEE: Lyon & Lyon
STREET: 633 West Fifth Street
STREET: Suite 4700
CITY: Los Angeles
STATE: California
                                                                                                                             COUNTRY: U.S.A. ZIP: 90071-2066
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER:
                                                                                                                                                                                                                                  ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                            Savio L.C.
                                                                                                                                                                                                                                                                                                                                                           Louis C.
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9, 1993
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Pred. No. 6.9e-35;
3; Mismatches 7;
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FILING DATE: June 5, 1995
CLASSIFICATION: 536
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/167,641
FILING DATE: December 14, 1993

APPLICATION NUMBER: US/08, FILING DATE: June 5, 1995

US/08/462,040

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RESULT 10
US-09-528-108-41
US-09-528-108-41, Application US/09528108
Patent No. 6319923
Patent No. 6319973N:
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Best Local :
                                                                                                                                                                        Sequence 47, Application US/08460890A Patent No. 5994109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/989,251
FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Spruill, W. MUXTAY
REGISTRATION NUMBER: 32,943
REFERENCE/DOCKET NUMBER: 5784-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION: APPLICANT: Tekamp
                                                                                                                                                         GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEFAX: 919 881 3175
INFORMATION FOR SEQ ID NO: 41:
APPLICANT: WOO, SAVIO L.C.
APPLICANT: Smith, Louis C.
APPLICANT: Cristiano, Richard J.
APPLICANT: Gottchalk, Stephen
TITLE OF INVENTION: NUCLEIC ACID TRANSPORTER SYSTEMS AND
TITLE OF INVENTION: METHODS OF USE
NUMBER OF SEQUENCES: 65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM CC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION NUMBER: US/09/528,108
FILLING DATE:
CLASSIFICATION:
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TITLE OF INVENTION: PROTEINS IN YEAST
NUMBER OF SEQUENCES: 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
LENGTH: 191 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELECOMMUNICATION INFORMATION: TELEPHONE: 919 420 2202
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE: Bell Seltzer IP Group of Alston & Bird, LLP STREET: 3605 Glenwood Ave. Suite 310
                                                                                                                                                                                                                                                                                                    146 CAPLKPAKSAKRSVRAQRHTDMPKTQK 172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         146 CAPLKPAKSAKRSVRAQRHTDMPKTQK 172
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                      78; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                amino acid
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VENTION: METHOD FOR EXPRESSION OF HETEROLOGOUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        68.9%;
89.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5784-4
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Pred. No. 1.2e-39;
1; Mismatches 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 4; Length 191;
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RESULT 12
US-08-167-641C-47
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OPERATING SYSTEM: IBM P.C. DOS 5.0
SOFTWARE: FASTSRO for Windows 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/460,890A
FILING DATE: June 5, 1995
CLASSIFICATION UMBER: US/08/460,890A
FILING DATE: June 5, 1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/167,641
APPLICATION NUMBER: 08/167,641
APPLICATION NUMBER: 07/85,389
FILING DATE: March 20, 1992
APPLICATION NUMBER: DCT/US93/02725
FILING DATE: March 19, 1993
APPLICATION NUMBER: DCT/US93/02725
FILING DATE: March 19, 1993
APPLICATION NUMBER: DCT/US93/02725
APPLICATION NUMBER: DCT/US93/02725
APPLICATION NUMBER: DCT/US93/02725
APPLICATION TOPORMATION:
AMERICATION TOPORMATION:
AMERICATION TOPORMATION:
                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME: Warburg, Richard J.
REGISTRATION NUMBER: 32,327
REFERENCE/DOCKET NUMBER: 21:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (213) 489-1600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
MEDIUM TYPE: storage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY: 11
                                                                                                                                                                                                    APPLICANT: Woo, Savio L.C.
APPLICANT: Smith, Louis C.
APPLICANT: Cristiano, Rich
APPLICANT: Gottchalk, Step
                                                                                                                 CORRESPONDENCE ADDRESS:
                                                                                                                                  APPLICANT: Cristiano, Richard J.
APPLICANT: Gottchalk, Stephen
TITLE OF INVENTION: NUCLEIC ACID TI
TITLE OF INVENTION: METHODS OF USE
NUMBER OF SEQUENCES: 65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEPHONE: (213) 955-0440
                                         ADDRESSEE: Lyon & Lyon
STREET: 633 West Fifth
STREET: Suite 4700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRANDEDNESS:
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STREET: 633 West Fifth Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY: U.S.A.
ZIP: 90071-2066
                                                                                                                                                                                                                                                                                                                                                                                                                                                           62 LRPARSARSVRAQRHTD 78
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amino acid
Los Angeles
California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CKPTKSARSIRAQRHTD 80
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                                                                                                                                                                                   ACID TRANSPORTER SYSTEMS
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Pred. No. 6.9e-35;
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RESULT 7
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APPLICANT: BELL, GRAEME I.; RALL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  I AND I
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                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 41,
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Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION: APPLICANT: Tekamp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES: 16
CURRENT APPLICATION DATA:
APPLICATION UNMBER: US/07/65
FILING DATE: 16-JUN-1987
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 630,557
FILING DATE: 19-JUL-1984
                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION: METHO
TITLE OF INVENTION: PROTE
NUMBER OF SEQUENCES: 41
CORRESPONDENCE ADDRESS:
ADDRESSEE: Bell Seltzer
STREET: 3605 Glenwood P
                                                                                                                                                                                                                                                                                                                                                                                                                                                tent No.
                                                                                                                          SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/989,25
                               ATTORNEY/AGENT INFORMATION:
NAME: Spruill, W. Murray
REGISTRATION NUMBER: 32,943
REFERENCE/DOCKET NUMBER: 57.
                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: PREPRO INSULIN-LIKE GROWTH FACTORS
TELECOMMUNICATION INFORMATION: TELEPHONE: 919 420 2202
                                                                                            FILING DATE:
CLASSIFICATION:
                                                                                                                                                                         MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
nes 77; Conserv
                                                                                                                                                                                                                                                 COUNTRY: U
ZIP: 27622
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                                                                                                                                                                                                                                                                               Raleigh
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6017731
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GPETICGAELVDALQFVCGPRGFYFNKFTVYGSSIRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAPLKPAKSARSVRAQRHTDMPKTQK 100
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                                                                                                                                                                                                                                                                                                                Seltzer IP Group of Alston & Bird, enwood Ave. Suite 310
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                                                                                                                                                                                                                                                                                                                                                                                 PROTEINS IN YEAST
                                                                                                                                                                                                                                                                                                                                                                                                 METHOD
                                                                                                                               US/08/989,251
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                                                                                                                                                                                                                                                                                                                                                                                                               Patricia
                                   5784-4
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Pred. No. 2.7e-40;
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                                                                                                                                                                                                                                                                                                                                                                                               EXPRESSION
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                                                                                               Matches
                                                                                                            Query Match
Best Local (
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                                                                                                                                                                                                                                   TELEFAX: 919 881 3175
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDIUM TYPE: Floppy disk
COMPUTER: IEM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/340,250
                                                                                                                                                                                                                                                                                                                               ATTORNEY/AGENT INFORMATION:
NAME: Spruill, W. Murray
REGISTRATION NUMBER: 32,
                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                   TELECOMMUNICATION INFORMATION: TELEPHONE: 919 420 2202
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Tekamp-Olson, Patricia
TITLE OF INVENTION: METHOD FOR EXPRESSION OF HETEROLOGOUS
TITLE OF INVENTION: PROTEINS IN YEAST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TOPOLOGY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQUENCES:
                                                                                                                                                                                      TYPE: ami
                                                                                                                                                                                                                                                                                                                   REFERENCE/DOCKET NUMBER:
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                                                                                                                                                                                                                    LENGTH:
                                                                                                                                                                                                                                                                                  TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                              CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE:
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                                                                                                            Similarity
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amino acid
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GY: linear
                                                        GPETICGAELVDALQFVCGPRGFYFNKFTVYGSSIRRAPQTGIVDECCFRSCDLRRLEMY
CVRCKPTKSA-RSIRAQRHTDMPKTQK 86
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                               GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: protein
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                                                                                             Conservative
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                                                                                      Score 412.5; DB 3;
Pred. No. 1.2e-39;
Mismatches 7;
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Pred. No. 1.2e-39;
                                                                                                                        Length 191;
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                              145
                                                            60
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Philadelphia

One Liberty Place - 46th Floor

PA

USA

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TT-US93-04329-1
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GENERAL INFORMATION:
APPLICANT: Bradford A. Jameson and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: 30-MAR-CLASSIFICATION: 514
PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/881,524
FILING DATE: 08-MAY-92,
ATTORNEY/AGENT INFORMATION:
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LENGTH: 153
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MEDIUM TYPE: DISKETT
                                                                                                             SOPTWARE: WORDPERFECT 5.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US93/04329
                                                                                                                                                                                                    ZIP: 19103
COMPUTER READABLE FORM:
MEDIUM TYPE: DISKETT
                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
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FILING DATE: 08-MAY-1992
TTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                   ADDRESSEE: Woodcock washiring ADDRESSEE: Kurtz Mackiewicz & Norris ADDRESSEE: Cone Liberty Place - 46th Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                           FILING DATE: 1 CLASSIFICATION:
                                                                                                                                                                  COMPUTER: IBM PS/2
OPERATING SYSTEM: PC-DOS
                                                                                                                                                                                                                                                              COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                 PLICANT: Bradford A. Jameson and Renato Baserga TLE OF INVENTION: IGF-1 Analogs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Mark DeLuca
REGISTRATION NUMBER: 33,229
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ECOMMUNICATION INFORMATION: ELEPHONE: (215) 568-3100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    109
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78; Conserv
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                                                                                                                                                                                                                                                                                  PA
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90.7%;
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                                                                                                                                                                                                          INCH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
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US-09-142-583A-11
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Best Local Similarity Matches 78; Conserv
                                      Query Match
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                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US/09/142,583A
FILING DATE: 29-Oct-1998
CLASSIFICATION: <UNKnown>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: WO PCT/GB97/00658
FILING DATE: 11-MAR-1997
APPLICATION NUMBER: GB 9605124.8
FILING DATE: 11-MAR-1996
APPLICATION NUMBER: GB 9605124.8
FILING DATE: 11-MAR-1996
APPLICATION NUMBER: GB 9605124.8
FILING DATE: 11-MAR-1996
APPLICATION NUMBER: 36663
REGISTRATION NUMBER: 36663
REGISTRATION NUMBER: 36663
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Local Similarity 90.7%;
Les 78; Conservative
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MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0,

CURRENT APPLICATION DATA:
                                                                                                   TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 11:
                                                                                                                                                                                                                                                     TELECOMMUNICATION INFORMATION:
TELEPHONE: 7038164000
TELEFAX: 7038164100
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                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
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ADDRESSEE: NIXON &
STREET: 1100 NORTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: GOLDSPINK, GEOFFREY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              109 CAPLKPAKSARSVRAQRHTDMPKTQK 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 GPETICGAELVDALQFVCGPRGFYFNKPTVYGSSIRRAPQTGIVDECCFRSCDLRRLEMY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AMINO ACID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CVRCKPTKSARSIRAQRHTDMPKTQK 86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GPETLCGAELVDALOFVCGDRGFYFNKPTGYGSSSRRAPOTGIVDECCFRSCDLRRLEMY 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CITY: ARLINGTON
                                                                                                                                                                   LENGTH: 156 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Application US/09142583A
70.6%; Score 423; DB 3; : 90.7%; Pred. No. 5.9e-41; ative 1; Mismatches 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    33,229
ER: TJU-0649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   METHOD OF TREATING MUSCULAR DISORDERS
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GLEBE ROAD
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Pred. No. 5.8e-41;
1; Mismatches 7
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                                      Length 156;
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US-07-953-230A-10
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                                                                                                                                  Matches
                                                                                                                                                                Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: CHEN, Thomas T
APPLICANT: SHAMBLOTT, Michael J
TITLE OF INVENTION: INSULIN-LIKE GROWTH FACTORS ISOLATED
TITLE OF INVENTION: FROM RAINBOW TROUT
NUMBER OF SEQUENCES: 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/953,230A
FILING DATE: 30-SEP-1992
CLASSIFICATION: 435
ATTORNEY/AGENT INFERMATION:
ATTORNEY/AGENT INFERMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                          MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE CHARACTERISTICS:
LENGTH: 137 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: Crane-Feury, Sharon E REGISTRAFION NUMBER: 36,113 REFERENCE/DOCKET NUMBER: 02: TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: amino acid STRANDEDNESS: sir TOPOLOGY: linear
                                                                                                                                                  Local
                                                                                                                                                                                                                   LOCATION: 116
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                      LOCATION: 31
OTHER INFORMATION:
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OTHER INFORMATION:
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ZIP: 22313-1404
                                                                                                                                                                                                                                                     NAME/KEY:
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o. 5476779
93
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                                                                                                                                                  Similarity
                                                                                            GPETLCGAELVDALQFVCGPRGFYFNKPTVYGSSIRRAPQTGIVDECCFRSCDLRRLEMY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GPETICGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
CAPLKPAKSARSVRAQRHIDMPKTQK 118
                                                                 GPETICGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAPLKPAKAARSVRAQRHTDMPKTQKYQPPSTNKKMKSQRRRKGSTFEEHK 121
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                           CVRCKPTKSARSIRAORHTDMPKTOK 86
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George Mason Bldg., Washington & Prince Sts.
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Pred. No. 5.1e-41;
1; Mismatches 7
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US-08-219-878A-1

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Sequence 1, Application US/08219878A
Patent No. 5473054
GENERAL INFORMATION:
APPLICANT: Bradford A. Jameson and Renato Baserga
TITLE OF INVENTION: IGF-1 Analogs

NUMBER OF SEQUENCES: 5
CORRESPONDENCE ADDRESS:
ADDRESSEE: Woodcock Washburn

Kurtz Mackiewicz & No.

5473054ris

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US-08-950-720A-9
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Patent No. 6046028
GENERAL INFORMATION:
                                                                                                                            Matches
                                                                                                                                        Query Match
Best Local (
                                                                                                                                                                                                                                                                  INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 152 amino acids
                                                                                                                                                                                                                                                                                                                                            REGISTRATION NUMBER: 37,438
REFERENCE/DOCKET NUMBER: 96-
TELECONMUNICATION INFORMATION:
TELEPHONE: 206-442-6672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ZIP: 98102
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
NAME: Sawislak, Deborah
REGISTRATION NUMBER: 37.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: FastSEQ for Windows Version CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Jaspers, Stephen R.
TITLE OF INVENTION: INSULIN HOMOLOG
NUMBER OF SEQUENCES: 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Lofton-Day, Catherine APPLICANT: Lok, Si
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STREET: Seattle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM CONTROL OPERATING SYSTEM:
                                                                                                                                                                                                                       STRANDEDNESS: SII
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                  TELEFAX: 206-442-6678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER:
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83
                              52
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                                                                                                                                          Similarity
                                                                                                                                                                                                                                                    amino acid
CAPLKPAKSARSVRAORHTDMPKTOK 108
                            CVRCKPTKSARSIRAQRHTDMPKTQK 86
                                                            GPETICGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                            GPETLCGAELVDALQFVCGPRGFYFNKPTVYGSSIRRAPQTGIVDECCFRSCDLRRLEMY
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                                                                                                                                        Score 423; DB 3;
Pred. No. 5.7e-41;
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB
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      Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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Match
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1: /cgn2_6/ptcdata/2/iaa/5A_COMB.pep:*
2: /cgn2_6/ptcdata/2/iaa/5B_COMB.pep:*
3: /cgn2_6/ptcdata/2/iaa/6A_COMB.pep:*
4: /cgn2_6/ptcdata/2/iaa/6B_COMB.pep:*
5: /cgn2_6/ptcdata/2/iaa/Backfiles1.pep:*
6: /cgn2_6/ptcdata/2/iaa/backfiles1.pep:*
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    GPETLCGAELVDALQFVCGP.....THKKRKLQRRRKGSTLEEHK 111
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    GenCore version 5.1.6 (c) 1993 - 2004 Compugen Ltd.
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US-09-142-583A-4
US-07-953-230A-10
US-08-95-720A-9
US-08-919-878A-1
PCT-US93-04329-1
US-09-142-583A-11
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Sequence 10, Appl
Sequence 9, Appli
Sequence 1, Appli
Sequence 11, Appli
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1, Appli 1, Appli 1, Appli 12, Appli 12, Appli 12, Appli 12, Appli 12, Appli 13, Appli 39, Appli 39, Appli 5, Appli 5, Appli	3; Length 121; :-51; Indels 0; Gaps	RESULT 1 US-09-142-583A-4 US-09-142-583A Sequence 4, Application US/09142583A Sequence 4, Application US/09142583A Patent No. 6221842 GENERAL INFORMATION: METHOD OF TREATING MUSCULAR DISORDERS INTIE OF INVENTION: METHOD OF TREATING MUSCULAR DISORDERS UNDER OF SEQUENCES: 11 CORRESPONDERS: 1100 NORTH GLEBE ROAD CITY: ARLINOTON STREET: 1100 NORTH GLEBE ROAD COUNTRY: USA ZIVITR READABLE FORM: COMPUTER READABLE FORM: COMPUTER READABLE FORM: COMPUTER READABLE FORM: APPLICATION NUMBER: 105/09/142,583A FILING DATE: 11-MAR-1996 APPLICATION NUMBER: US/09/142,583A APILICATION NUMBER: WD/09/142,583A APPLICATION NUMBER: B9605124.8 APPLICATION NUMBER: B663 REFERENCE/DOCKET NUMBER: 117-263 TELECOMMUNICATION INFORMATION: LENGTH: 121 anino acids TYPE: ASA-4	NMENTS	Appl Appl Appl Appl Appl Appl Appl Appl
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1 GPETILCGAELVDALQFVCGPRGFYFNKPTVYGSSIRRAPQTGIVDECCFRSCDLRRLEMY 60

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RESULT 15
US-09-921-398-41
US-09-921-398-41
; Sequence 41, Application US/09921398
; Patent No. US20020055169A1
; GENERAL INFORMATION: Patricia
APPLICANT: Tekamp-Olson, Patricia
APPLICANT: Tekamp-Olson, Patricia
PROTEINS IN YEAST
: TITLE OF INVENTION: METHOD FOR EXPRESSION OF HETEROLOGOUS
PROTEINS IN YEAST
                                                                                                                                                                                                                                                                                                                                       LENGTH: 191 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 41:
US-09-921-398-41
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Search completed: March
Job time : 151.455 secs
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MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Batentia Release #1.0, Ver.

APPLICATION NUMBER: US/09/921,398

FILING DATE: 02-Aug-2001

CLASSIFICATION : CURROWN-

ATTORNEY/AGENT INFORMATION:

NAME: SPUILL, W. Murray

ATTORNEY/AGENT INFORMATION:

RESISTRATION NUMBER: 32,943

REFERENCE/DOCKET NUMBER: 5784-4

TELECOMMUNICATION INFORMATION:

TELEPHONE: 919 480 2202

TELEPHONE: 919 881 3175

INFORMATION FOR SEG ID NO: 41:

SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
Matches 78; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES: 41
CORRESONDENCE ADDRESS:
CORRESSEE: Bell Seltzer IP Group of Alston & Bird, LLP
STREET: 3605 Glenwood Ave. Suite 310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61 CVRCKPTKSARSIRAQRHTDMPKTQK 86
                                                                                        146 CAPLKPAKSAKRSVRAQRHTDMPKTQK 172
                                                                                                                                                                     61 CVRCKPTKSA-RSIRAQRHTDMPKTQK 86
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STATE: NC
COUNTRY: US
ZIP: 27622
                                                                                                                                                                                                                                                            68.9%; Score 412.5; DB 9; Length 191; ilarity 89.7%; Pred. No. 1.2e-38; Conservative 1; Mismatches 7; Indels 1.
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RESULT 11
US-10-207-655-55
; Sequence 55, Application US/10207655
; Publication No. US20030118592A1
; GENERAL INFORMATION:
APPLICANT: Leobetter, Jeffrey A.
; APPLICANT: Hayden-Leobetter, Martha S.
; APPLICANT: Hayden-Leobetter, Martha S.
; FILE REFERENCE: 390069.401C1
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                                                                                                                                                                                                                                                             RESULT 12
US-09-852-261-14
                                 APPLICANT: GOLDSPINK, GEOFFREY
APPLICANT: TERENGHI, GIORGIO
TITLE OF INVENTION: REPAIR OF NERVE DAMAGE
FILE REFERENCE: 117-351
CURRENT APPLICATION NUMBER: US/09/852,261
CURRENT FILING DATE: 2001-05-10
PRIOR APPLICATION NUMBER: GB 0011278.9
PRIOR FILING DATE: 2000-05-10
NUMBER OF SEQ ID NOS: 14
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CURRENT FILING DATE: 2002-07-25
NUMBER OF SEQ ID NOS: 426
SOFTWARE: Patentin version 3.0
SEQ ID NO 55
SEQ ID NO 55
                                                                                                                                                                                                                         Sequence 14, Application US/09852261 Patent No. US20020083477A1
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SOFTWARE: PatentIn Ver. 2.1
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NUMBER OF SEQ ID NOS: 4
SOFTWARE: PatentIn version 3.0
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TYPE: PRT
ORGANISM: Homo sapiens
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l Similarity 90.7%;
78; Conservative
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Similarity 90.7%;
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Pred. No. 6.1e-40;
1; Mismatches 7;
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Pred. No. 6.1e-40;
1; Mismatches 7
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US-10-238-114-2
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Publication No. US20030100073A1
GENERAL INFORMATION:
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Publication No. US20030100073A1
GENERAL INFORMATION:
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SEQ ID NO 3
LENGTH: 105
                                     NUMBER OF SEQ ID NOS: 20
SOFTWARE: Patentin version 3.1
SEQ ID NO 2
LENGTH: 153
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Best Local Similarity
Matches 77; Conserv
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Best Local (
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APPLICANT: MADREONI , Christine Michele
TITLE OF INVENTION: IGF-1 AS FELINE VACCINE ADJUVANT,
FILE REFERENCE: 454313-3165.1
CURRENT APPLICATION NUMBER: US/10/238,114
CURRENT FILING DATE: 2002-09-10
PRIOR APPLICATION NUMBER: PR 01 11736
PRIOR FILING DATE: 2001-09-11
PRIOR APPLICATION NUMBER: US 60/318,666
PRIOR PILING DATE: 2001-09-12
PRIOR PILING DATE: 2001-09-12
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PRIOR FILING DATE: 2001-09-11
PRIOR APPLICATION NUMBER: US 60/318,666
PRIOR FILING DATE: 2001-09-12
NUMBER OF SEQ ID NOS: 20
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TITLE OF INVENTION: IGF-1 AS FELINE VACCINE ADJUVANT, IN PARTICULAR AGAINST FELINE
FILE REFERENCE: 454313-3165.1
CURRENT APPLICATION NUMBER: US/10/238,114
CURRENT FILING DATE: 2002-09-10
ORGANISM: Felis catus
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77; Conservative
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89.5%; Pred. No. 8.7e-40;
ative 2; Mismatches 7;
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Pred. No. 1.5e-39;
1; Mismatches 8;
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US-10-251-661-8
; Sequence 8, Application US/10251661
; Publication No. US20030166555A1
; GENERAL INFORMATION:
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US-09-852-261-10
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CURRENT APPLICATION NUMBER: US/10/443,466A
CURRENT FILLNG DATE: 2003-05-22
PRIOR APPLICATION NUMBER: 60/383,459
PRIOR APPLICATION NUMBER: 60/393,214
PRIOR FILLNG DATE: 2002-05-24
PRIOR FILLNG DATE: 2002-07-02
PRIOR FILLNG DATE: 2002-07-02
PRIOR FILLNG DATE: 2002-07-02
PRIOR FILLNG DATE: 2002-12-23
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NUMBER OF SEQ ID NOS: 14
SOFTWARE: PATENTIN VET. 2.1
SEQ ID NO 10
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                      APPLICANT: Alberini, Cristina M. APPLICANT: Bear, Mark F.
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TITLE OF INVENTION: REPAIR OF NERVE DAMAGE
FILE REFERENCE: 117-351
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TITLE OF INVENTION: Methods and Compositions for Regulating
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TYPE: PRT
ORGANISM: Homo sapiens
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TYPE: PRT
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nes 78; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAPLKPAKSARSVRAQRHTDMPKTQKYQPPSTNKNTKSQRRK 150
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                                                                                                                                                                                                                                  CAPLKPAKSARSVRAQRHTDMPKTQK 86
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                                                                                                                                                                                                                                                                                                                                                                                                                                          70.6%;
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Pred. No. 1.9e-44;
3; Mismatches 12;
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                                                                                                                                                                 RESULT 10
US-10-136-639-3
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US-09-919-497-74
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LENGTH: 153
TYPE: PRT
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Best Local S
Matches 78
                                               Sequence 3, Application US/10136639

Publication No. US20030072761A1

GENERAL INFORMATION:

APPLICANT: LeBowitz, Jonathan

TITLE OF INVENTION: METHODS AND COMPOSITIONS

TITLE OF INVENTION: BARRIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQ ID NOS: 12
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 8
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                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Mutter, George L.
TITLE OF INVENTION: PROCNOSTIC CLASSIFICATION OF ENDOMETRIAL CANCER
FILE REFERENCE: B0801/7225
CURRENT APPLICATION NUMBER: US/09/919,497
CURRENT FILING DATE: 2001-07-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
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Patent No. US20
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TYPE: PRT
ORGANISM: Homo:
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CURRENT APPLICATION NUMBER: US/10/251,66.
CURRENT FILING DATE: 2002-09-20
PRIOR APPLICATION NUMBER: 60/193,614
PRIOR FILING DATE: 2000-03-31
PRIOR APPLICATION NUMBER: PCT/US01/10661
PRIOR FILING DATE: 2001-04-02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION NUMBER: US 60/221,735
PRIOR FILING DATE: 2000-07-31
NUMBER OF SEQ ID NOS: 100
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FILE REFERENCE: SYM-008
CURRENT APPLICATION NUMBER: US/10/136,639
CURRENT FILING DATE: 2002-09-06
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                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
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Pred. No. 5.4e-40;
1; Mismatches 7
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                                                                        FOR TARGETING PROTEINS ACROSS THE BLOOD
                                                                                                                                                                                                                                                                                                                                                                                                                             Length 153;
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RESULT 4
US-09-852-261-2
US-09-852-261-2
; Sequence 2, Application US/09852261
; Patent No. US20020083477A1
; PATENTAL INFORMATION:
; GENERAL INFORMATION:
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, TYPE: PRT
, ORGANISM: Oryctolagus cuniculus
US-09-852-261-6
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US-09-852-261-6
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CURRENT APPLICATION NUMBER: US/10/161,088
CURRENT FILING DATE: 2002-05-31
PRIOR APPLICATION NUMBER: SE 0101934-8
PRIOR FILING DATE: 2001-06-01
NUMBER OF SEQ ID NOS: 3
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQ ID NOS: 14
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 6
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                                                                                                                                                                                                                                                                                                                                                                                          Query Match
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: GOLDSPINK, GEOFFREY
APPLICANT: TERENGHI, GIORGIO
TITLE OF INVENTION: REPAIR OF NERVE DAMAGE
FILE REFERENCE: 117-351
CURRENT APPLICATION NUMBER: US/09/852,261
CURRENT FILING DATE: 2001-05-10
APPLICANT: GOLDSPINK, GEOFFREY
APPLICANT: TERENGHI, GIORGIO
TITLE OF INVENTION: REPAIR OF NERVE DAMAGE
FILE REFERENCE: 117-351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT FILING DATE: 2001-05-10
PRIOR APPLICATION NUMBER: GB 0011278.9
PRIOR FILING DATE: 2000-05-10
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                                                                                                                                                                                                       CAPLKPAKAARSVRAQRHTDMPKTQKYQPPSTNKKMKSQRRRKGSTFEEHK 111
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91.0%;
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Pred. No. 3.7e-50;
3; Mismatches 12
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Pred. No. 6.8e-53;
2; Mismatches 8
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; TYPE: PRT; ORGANISM: Homo sapiens US-09-852-261-2
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CURRENT FILING DATE: 2001-05-10
PRIOR APPLICATION NUMBER: GB 0011278.9
PRIOR FILING DATE: 2000-05-10
NUMBER OF SEQ ID NOS: 14
SOFTWARE: PATENTIN VET. 2.1
SEQ ID NO 2
LENGTH: 110
TYPE: DEST
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Patent No. US20020083477A1
GENERAL INFORMATION:
APPLICANT: GOLDSPINK, GEOFFREY
APPLICANT: TERENCHI, GIORGIO
TITLE OF INVENTION: REPAIR OF NERVE DAMAGE
FILE REFERENCE: 117-351
                                                                                                                                         Sequence 20, Application US/10443466A Publication No. US20040018191A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 12
LENGTH: 105
TYPE: PRT
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Best Local (
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Best Local Similarity
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PRIOR FILING DATE: 2000-05-10
NUMBER OF SEQ ID NOS: 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION NUMBER: US/09/852,261
CURRENT FILING DATE: 2001-05-10
                                                APPLICANT:
                                                                 APPLICANT:
                                                                              APPLICANT:
                                                                                                              APPLICANT:
                                                                                                                          APPLICANT: Wang,
                                 APPLICANT:
                                                                                                                                                                                                                                                                             61 CVRCKPTKSARSIRAQRHTDMPKTQK 86
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Leonard, Presta
Brams, Peter
Feingersh, Diane
Williams, Denise
Srinivasan, Mohan
                                                       Greenberg, kurungard, Presta
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                                                                                                                                                                                                                                                      CVRCKPTKSARSIRAQRHTDMPKTQK
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                                                                                            Hailey,
                                                                                                       Pachter,
                                                                                                                                                                                                                                                                                                                                                                                Conservative
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                                                                                             Jonathan A
                                                                                                                                                                                                                                                                                                                                                                         78.0%; Pr
100.0%; Pr
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                                                                                                                                                                                                                                                                                                                                                                           78.6%; Score 471; DB 9; Li
100.0%; Pred. No. 1.5e-45;
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Pred. No. 3.5e-48;
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                                                                                                                                                                                                                                                    8
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                                                                                                                                                                                                                                                                                                                                                                                                             Length 105;
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Result
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB
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                                                                                                                                                                                                                                                                                                                Match
                                                                                                                                                                                                                                                                                                                                                                                                          is the number of results predicted by chance to have a ater than or equal to the score of the result being printed, rived by analysis of the total score distribution.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                               / Cgn2_6/ptodata/1/pubpaa/US08_NEW_PUB-COMB.pep:*
/ Cgn2_6/ptodata/1/pubpaa/US08_NEW_PUB-COMB.pep:*
/ Cgn2_6/ptodata/1/pubpaa/US08_PUB-COMB.pep:*
/ Cgn2_6/ptodata/1/pubpaa/US09A_PUB-COMB.pep:*
/ Cgn2_6/ptodata/1/pubpaa/US09A_PUB-COMB.pep:*
/ Cgn2_6/ptodata/1/pubpaa/US09B_PUB-COMB.pep:*
/ Cgn2_6/ptodata/1/pubpaa/US10A_PUB-COMB.pep:*
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/ Cgn2_6/ptodata/1/pubpaa/US10C_PUB-COMB.pep:*
/ Cgn2_6/ptodata/1/pubpaa/US10C_NEW_PUB.pep:*
/ Cgn2_6/ptodata/1/pubpaa/US10C_NEW_PUB.pep:*
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_6/ptodata/1/pubpaa/SCG_NEW_PUB.pep:*
_6/ptodata/1/pubpaa/US06_NEW_PUB.pep:*
_6/ptodata/1/pubpaa/US06_PUBCOMB.pep:*
_6/ptodata/1/pubpaa/US07_NEW_PUB.pep:*
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US-9-852-261-10
US-10-443-466A-20
US-10-21-661-8
US-10-136-639-3
US-10-207-655-55
US-10-238-114-3
US-10-238-114-2
US-09-952-261-14
US-09-952-261-14
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Sequence 4, Appli
Sequence 2, Appli
Sequence 6, Appli
Sequence 20, Appli
Sequence 10, Appl
Sequence 50, Appli
Sequence 74, Appl
Sequence 74, Appl
Sequence 55, Appl
Sequence 14, Appli
Sequence 14, Appli
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quence 2	equence 99. Apr	e 2,	e 199, Ap	equence 145, Ap	equence 2, Appl	ce 38,	quence 7, Appli	e 57, App	equence 5,	equence 218, Ap	e 42	quence 12, Appl	e 39,	quence 39, Appl	14, App	equence 1, Appl	equence 7, Appl	equence 7, Appl	e 1,	equence 7, Appl	equence 1, Appl	equence 1, Appl	equence 1, Appl	e 3, Appl	quence 8, 1	,	quence 29,	e 14,	equence 41, App

ALIGNMENTS

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RESULT 2
US-10-161-088-2
; Sequence 2, Application US/10161088
; Publication No. US20030077761A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: GOLDSPINK, GEOFFREY
APPLICANT: TERENGHI, GLORGIO
TITLE OF INVENTION: REPAIR OF NERVE DAMAGE
FILE REFERENCE: 117-351
CURRENT APPLICATION NUMBER: US/09/852,261
CURRENT FILING DATE: 2001-05-10
PRIOR APPLICATION NUMBER: GB 0011278.9
PRIOR FILING DATE: 2000-05-10
NUMBER OF SEQ ID NOS: 14
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SEQ ID NO 4
LENGTH: 111
TYPE: PRT
ORGANISM: Rattus sp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 4, Application US/09852261
Patent No. US20020083477A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                  Matches 111;
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Best Local
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                                                                                                                                                                                                                                                  1 GPETICGAELVDALQFVCGPRGFYFNKPTVYGSSIRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                        CVRCKPTKSARSIRAQRHTDMPKTQKSQPLSTHKKRKLQRRRKGSTLEEHK 111
                                                                                                                                  CVRCKPTKSARSIRAQRHTDMPKTQKSQPLSTHKKRKLQRRRKGSTLEEHK 111
                                                                                                                                                                                                                        GPETLCGAELVDALQFVCGPRGFYFNKPTVYGSSIRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                                             100.0%; Score 599; DB 9; ilarity 100.0%; Pred. No. 5.4e-60; Conservative 0; Mismatches 0;
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R;Francis, G.L.; Owens, P.C.; McNeil, K.A.; Wallace, J.C.; Ballard, F.J.
J. Endocrinol. 122, 681-687, 1989
A;Title: Purification, amino acid sequences and assay cross-reactivities of porcine insu A;Reference number: A60738, MUID:90039035; PMID:2809477
A;Accession: A60738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R;Dickson, M.C.; Huskisson, N.S.; Gilmour, R.S. submitted to the EMBL Data Library, November 1989
A;Description: Porcine Insulin-like growth factor gene: sequence of exon and 5' non-codi A;Reference number: S21488
A;Accession: S21488
                                                                                                                                                                                                                                      A;Reference number: A34938; MUID:89096956; PMID:3211153
A;Accession: A34938
A;Molecule type: mRNA
A;Residues: 'Y',21-153 <TAV>
A;Cross-references: GB:M31175
                                                                                                                                                                                                                                                                                                                                                                                                                                              R:Tavakkol, A.; Simmen, F.A.; Simmen, R.C.M.
Mol. Endocrinol. 2, 674-681, 1988
A;Title: Porcine insulin-like growth factor-I (pIGF-I): complementary deoxyribonucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R;Mueller, M.; Brem, G.
Nucleic Acids Res. 18, 364, 1990
Nucleic Acids Res. 18, 364, 1990
A;Title: Nucleotide sequence of porcine insulin-like growth factor I: 5' untranslated re A;Reference number: S12825; MUID:90221822; PMID:2326169
A;Accession: S12825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    insulin-like growth factor I precursor - pig
N;Alternate names: somatomedin C
C;Species: Sus scrofa domestica (domestic pig)
C;Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 16-Jul-1999
C;Accession: S12825; S21488; A34938; A60738
R;Mueller, M., Brem, G.
Nucleic Acids Res. 18, 364, 1990
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F;22-48/Domain: propeptide #status predicted <PRO>
F;49-118/Product: insulin-like growth factor IA (active) #status experimental <MAT>
F;49-77/Domain: insulin B chain-like #status experimental <DOB>
F;78-89/Domain: insulin connecting C peptide-like #status experimental <CHC>
F;90-110/Domain: insulin A chain-like #status experimental <DOA>
F;111-118/Domain: D peptide #status experimental <CHD>
F;111-133/Domain: carboxyl-terminal propeptide (E peptide) #status predicted <CPR>
F;54-96,66-109,95-100/Disulfide bonds: #status predicted
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A;Note: a form of IGF1 lacking the first three residues and possessing C;Superfamily: insulin C;Keywords: alternative splicing; colostrum; growth factor; plasma
A; Molecule type: protein A; Residues: 49-117, 'X' <
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Molecule type: DNA
A; Residues: 1-21 <DIC>
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A; Residues: 1-153 < MUE>
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A;Title: Insulin-like growth factors 1 and 2 in bovine colostrum. Sequences and biologic A;Reference number: S00465; MUID:88268820; PMID:3390164
A;Accession: S00465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Cross-references: EMBL:X17638; NID:g1995; PIDN:CAA35632.1; PID:g1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Cross-references: EMBL: X52388
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A; Residues: 49-118 < FRA>
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   <FRA>
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Pred. No. 3.5e-35;
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C;Keywords: alternative splicing; growth factor; plasma F;7-3J/Domain: propagide #status predicted APRO>
F;34-103/Product: insulin-like growth factor I (active) #status experimental F;34-62/Domain: insulin chain B-like #status predicted <DOB>
F;63-74/Domain: insulin connecting peptide-like #status predicted <CHC>
F;75-95/Domain: insulin chain A-like #status predicted <DOA>
F;75-95/Domain: insulin chain A-like #status predicted <CHD>
F;96-103/Domain: opptide D #status predicted <CHD>
F;104-138/Domain: carboxyl-terminal propeptide (E peptide) #status predicted F;39-61,51-94,80-85/Disulfide bonds: #status predicted
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C;Superfamily: insulin
C;Keywords: growth factor
C;Keywords: growth factor
F;1-22/Domain: bignal sequence #status predicted <SIG>
F;23-48/Domain: propeptide #status predicted <PRO>
F;49-153/Product: insulin-like growth factor IA #status experimental <MAT>
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C;Superfamily: insulin
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A;Residues: 1-138 <DIC>
A;Residues: G.L:
A;Cross-references: EMBL:X51358
R;Francis, G.L:
McNeil, K.A.; Wallace, J.C.; Ballard, F.J.; Owe
Endocrinology 124, 1173-1183, 1989
A;Title: Sheep insulin-like growth factors I and II: sequences,
A;Reference number: 807198; MUID:89136887; PMID:2537174
A;Accession: 807198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               R;Dickson, M.C.; Saunders, J.C.; Gilmour, R.S.
J. Wol. Endocrinol. 6, 17-31, 1991
A;Title: The ovine insulin-like growth factor-I gene: cl
A;Reference number: S22877; MUID:91197361; PMID:2015053
A;Accession: S22878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      insulin-like growth factor I precursor, splice form 2 - sheep C;Species: Ovis orientalis aries, Ovis ammon aries (domestic sheep) C;Dste: 23-Apr-199 #sequence revision 23-Apr-1999 #text_change 23-Jul-1999 C;Accession: S22878; S07198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Experimental source: fetal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Molecule type: protein A; Residues: 34-103 < FRA>
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94
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                                                  61 CVRCKPTKSARSIRAQRHTDMPKTQK 86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61 CVRCKPTKSARSIRAORHTDMPKTQK 86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 GPETICGAELVDALQFVCGPRGFYFNKPTVYGSSIRRAPQTGIVDECCFRSCDLRRLEMY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          77;
                                                                                                                                                                                                                       76;
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CAPIKAAKSARSVRAQRHTDMPKAQK 119
                                                                                                     GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 93
                                                                                                                                                        GPETICGAELVDALQFVCGPRGFYFNKPTVYGSSIRRAPQTGIVDECCFRSCDIRRLEMY 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protein
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                                                                                                                                                                                                                                            Score 410; DB 2; Length 138 
Pred. No. 2.1e-34;
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Pred. No. 3.5e-35;
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Search completed: March Job time : 11.7018 secs

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R;Mikawa, S.; Yoshikawa, G.; Aoki, H.; Yamano, Y.; Sakai, H.; Komano, T. Biosci. Biotechnol. Biochem. 59, 87-92, 1995 A;Tille: Dynamic aspects in the expression of the goat insulin-like growth factor-I (IGF A;Tille: Dynamic aspects in the expression of the goat insulin-like growth factor-I (IGF A;Reference number: UC2483; MUID:95201385; PMID:7765981
                                                                                                                                                                                                                                                                                                                                                                                                      insulin-like growth factor-I precursor - goat
C;Species: Capra aegagrus hircus (domestic goat)
C;Date: 16-Mar-1995 #sequence_revision 26-May-1995
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F;1-21/Domain: signal sequence #status predicted <SIG>
F;2-48/Domain: propeptide #status predicted <PRO>
F;49-118/Product: insulin-like growth factor I #status experimental <MAT>
F;49-77/Domain: insulin chain B-like #status experimental <CHB>
F;78-89/Domain: insulin connecting C peptide-like #status experimental <CHF;78-89/Domain: insulin chain A-like #status experimental <CHA>
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                                                                                                                          A;Molecule type: mRNA
A;Residues: 1-154 <MIK>
A;Cross-references: GB:
                                                                                                                                                                                                                                                                                                                                                C; Accession: JC2483
R; Mikawa, S.; Yoshikawa,
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Cancer Res. 53, 2475-2478, 1993
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i,Rosidues: 1-123,'E',125-132,'E',134-153 <BAN>
i,Residues: 1-123,'E',125-132,'E',134-153 <BAN>
i,Cross-references: GB:X56773; GB:S61841; NID:g32989
i,Cross-references: GB:X56773; GB:S61841; NID:g32989
i,Experimental source: anaplastic oligodendroglioma
i,Note: sequence extracted from NCBI backbone (NCBIN:133056, NCBIP:133057)
i,Note: sequence inconsistent with the nucleotide translation
i,Note: sequence inconsistent with the nucleotide translation
i,Rote: sequence inconsistent with the nucleotide translation
i,Rote: Ball, G.I.
feth. Enzymol. 146, 239-248, 1987
i,Title: Human insulin-like growth factor I and II messenger RNA: isolation
i,Reference number: I57044; MUID:88065102; PMID:3683205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;111-118/Domain: D peptide #status experimental <CHD>
;119-153/Domain: carboxyl-terminal propeptide (E peptide) #status predicted
;54-96,66-109,95-100/Disulfide bonds: #status predicted
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;Residues: 24-153 <RAL>
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                                                             ;Introns: 21/3; 75/1; 135/3
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Introns: 21/3; 74/1; 134/3
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                                                                                                  ;Genetics:
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                                                                                                                             GB:S11378;
sequence
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Pred. No. 1.1e-35;
1; Mismatches 7; Indels
                                                                                                                             :D26116;
predicted <SIG>
                                                                                                                             DDBJ:D26117; DDBJ:D26118;
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A;Residues: 1-153 < FOT>
A;Cross-references: EMBL;X15726; NID:g454;
A;Experimental source: liver
R;Honegger, A.; Humbel, R.E.
J. Biol. Chem. 261, 569-575, 1986
A;Title: Insulin-like growth factors I and A;Reference number: A92585; MUID:86085881;
A;Accession: A25623
                                                                                                                                                                                                                                                                                C;Species: Bos primigenius taurus (cattle)
C;Date: 31-Mar-1988 #sequence revision 28-.
C;Accession: S12672; A25623; S00465
R;Fotsis, T.; Murphy, C.; Gannon, F.
Mucleic Acids Res. 18, 676, 1990
B.Tifle. Nucleocide Commons
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C; Superfamily: insulin
C; Keywords: growth fact
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C; Species: Bos prim
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Gene 130, 305-306, 1993
A;Title: Sequence of a cDNA encoding dog insulin-like growth
A:Dafarance number: PN0622; MUID:93366192; PMID:8359700
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  A; Residues: 49-1
R; Francis, G.L.;
                    A; Molecule type: protein A; Residues: 49-118 < HON>
                                                                                                                                                                                            A; Molecule type: mRNA
A; Residues: 1-153 < FO
                                                                                                                                                                                                                                   A; Accession: S12672
                                                                                                                                                                                                                                                 A; Title: Nucleotide sequence of the bovine A; Reference number: S12672; MUID: 90175014;
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C;Comment: This protein
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C;Species: Canis lupus familiaris (dog)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
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N;Alternate names: IGF-I; somatomedin C
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  Upton,
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89.58;
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    Ballard,
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Pred. No. 2 9e-35;
1; Mismatches 8;
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Pred. No. 1.1e-35;
F.J.;
                                                                                                                                                                          PIDN: CAA33746.1;
                                                                             II in fetal PMID:3941093
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PMID:2308858
  McNeil,
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RESULT
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Mol. Endocrinol. 4, 1914-1920, 1990
A;Title: A novel human insulin-like growth factor I messenger RNA
A;Reference number: A36552; MUID:91187000; PMID:2082190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C;Species: Homo sapiens (man)
C;Date: 12-Apr-1991 #sequence_revision 12-Apr-1991
C;Accession: A36552
R;Tobin, G.; Yee, D.; Bruenner, N.; Rotwein, P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             R;Bell, G.I.; Stempien, M.M.; Fong, N.M.; Seino, S. Nucleic Acids Res. 18, 4275, 1990
A;Title: Sequence of a cDNA encoding guinea pig IGF-I. A;Reference number: S12719; MUID:90332447; PMID:2377480
A;Accession: S12719
                                                                                                                                                                                                                                                                                                      A;Molecule type: mRNA
A;Residues: 1-137 <TOB>
A;Cross-references: GB:M37484; NID:g184833; PIDN:AAA52789.1; PID:g184834
C;Superfamily: insulin
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C;Species: Cavia porcellus (guinea pig)
C;Date: 30-Sep-1991 #sequence_revision 30-Sep-1991 #text_change 07-Nov-1997
C;Accession: S12719
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A;Cross-references: EMBL:X52951
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Best Local :
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CVRCKPTKSARSIRAQRHTDMPKTQK 86
                                                   GPETLCGABLVDALQFVCGDRGFYFNKFTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                    GPETLCGAELVDALQFVCGPRGFYFNKPTVYGSSIRRAPQTGIVDECCFRSCDLRRLEMY
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Pred. No. 9.9e-36;
1; Mismatches 7;
                                                                                                                                                                                 Score 423; DB 2;
Pred. No. 9.9e-36;
1; Mismatches 7
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A;Residues: 49-118 <RIN>
A;Residues: 49-118 <RIN>
R;Karey, K.P.; Marquardt, H.; Sirbasku, D.A.
Blood 74, 1084-1092, 1989
A;Title: Human platelet-derived mitogens. Identification
A;Title: Human platelet derived mitogens. Identification
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Cross-references: EMBL:X57025; NID:g33007; PIDN:CAA40342.1; PID:g33008 R;Le Bouc, Y.; Dreyer, D.; Jaeger, F.; Binoux, M.; Sondermeyer, P. FEBS Lett. 196, 108-112, 1986 A;Title: Complete characterization of the human IGF-I nucleotide sequence A;Reference number: A23622; MUID:86108910; PMID:2935423 A;Accession: A23622
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A;Residues: 1-153 JAN>
A;Residues: 1-153 JAN>
A;Residues: GB:X00173; NID:g33015; PIDN:CAh24998.1; PID:g33016
A;Ross-references: GB:X00173; NID:g33015; PIDN:CAh24998.1; PID:g33016
A;Note: Met-24 is proposed as a likely initiator
A;Note: Met-24 is proposed as a likely initiator
R;Steenbergh, P.H.; Koonen-Reemst, A.M.C.B.; Cleutjens, C.B.J.M.; Sussenbach, J.S.
Biochem. Biophys. Res. Commun. 175, 507-514, 1991
A;Title: Complete nucleotide sequence of the high molecular weight human IGF-I mRNA.
A;Reference number: JT0571; MUID:91207342; PMID:2018498
A;Accession: JT0571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Cross-references: GB:M27544; NID:g184829; PIDN:AAA52787.1; PID:g306927 R;Rinderknecht, E.; Humbel, R.E.
J. Biol. Chem. 253, 2769-2776, 1978
A;Tille: The amino acid sequence of human insulin-like growth factor I and its structu A;Reference number: A92226; MUID:78130171; PMID:632300
A;Accession: A92226
                                                                          A;Experimental source: platelet lysate R;Nordqvist Sandberg, A.C.; Stahlbom, P.A.; Lake, M.; Sara, submitted to the EMBL Data Library, November 1990 A;Description: Nucleotide sequence of the human fetal brain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Nature 306, 609-611, 1983
A;Title: Sequence of cDNA encoding human insulin-like growth factor I precursor.
A:Title: Sequence of cDNA encoding human insulin-like growth factor I precursor.
A:Paference number: A93321; MUID:84068210; PMID:6358902
                                A;Reference number: S30519
A;Accession: S30519
                                                                                                                                                                                                        A; Molecule type: protein
A; Residues: 49-53,'X',55-65,'X',67-75 <KAR>
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A;Residues: 1-153 <LEB>
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A; Residues: 1-153 < STE>
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A;Residues: 24-153 <DEP>
A;Cross-references: GB:X03420; GB:X00362;
R;Jansen, M.; yan Schaik, F.M.A.; Ricker,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEBS Lett. 195, 179-184, 1986
A; Title: Organization of the human genes for insulin-like A; Reference number: A91356; MUID:86108862; PMID:3002851
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insulin-like growth factor I precursor, splice form A [validated] - human
N;Alternate names: IGF-I long splice form precursor; IGF-IA; somatomedin C
C;Species: Homo sapiens (man)

C;Date: 24-Apr-1984 #sequence revision 30-Jun-1987 #text change 31-Dec-2000 C;Accession: A92581; A23614; Ā93321; JT0571; A23622; A92726; A60483; S30519; R;Rotwein, P.; Pollock, K.M.; Didier, D.K.; Krivi, G.G. J. Biol. Chem. 261, 4828-4832, 1986 A48960; 1

A;Molecule type: DNA A;Residues: 1-153 <ROT> A;Cross-references: GB:M14156; NID:g183107; PIDN:AAA52538.1; PID:g183110 R;de Pagter-Hölthuizen, P.; van Schaik, F.M.A.; Verduijn, G.M.; van Ommer Ommen, G.J.B.;

Вос

growth factors I and

NID:g33020; PIDN:CAA27152.1; PID:g33021; A.T.; Bullock, B.; Woods, D.E.; Gabbay, J

sequence isolated

о́т insulinlike growth factors

fetal brain IGF-la.

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A;Molecule type: mRNA
A;Residues: 46-153 <MUR>
A;Residues: 46-153 <MUR>
A;Cross-references: GB:M17714; NID:g204324; PIDN:AAA41227.1; PID:g204325
A;Cross-references: GB:M17714; NID:g204324; PIDN:AAA41227.1; PID:g204325
A;Katc, H.; Takenaka, A.; Miura, Y.; Nishiyama, M.; Noguchi, T.
Agric. Biol. Chem. 54, 2225-2230, 1990
A;Title: Evidence of introduction by molecular cloning of artificial inverted A;Reference number: JN0088; MUID:91136779; PMID:1368576
A;Accession: JN0088
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A;Residues: 27-153 <CAS>
A;Residues: 27-153 <CAS>
A;Cross-references: GB:M17335; NID:g204751; PIDN:AAA41386.1; PI
R;Kato, H.; Okoshi, A.; Miura, Y.; Noguchi, T.
Rgric. Biol. Chem. 54, 1599-1601, 1990
A;Title: A new cDNA clone relating to larger molecular species
A;Reference number: JH0133; MUID:91103966; PMID:1368571
A;Reference JH0133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  R;Murphy, L.J.; Bell, G.I.; Duckworth, M.L.; Friesen, H.G. Endocrinology 121, 684-691, 1987
A;Title: Identification, characterization, and regulation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Title: Isolation of rat testis cDNAs encoding an insulin-like growth factor I A;Reference number: A27849; MUID:88003970; PMID:3652906 A;Accession: A27849
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Title: Mosaic evolution of the insulin-like growth factors. Organization, A;Reference number: A27804; MUID:87222423; PMID:3034909 A;Accession: B27804
                       A; Molecule type: protein A; Residues: 49-118 < TAM>
                                                                          A;Note: the authors present evidence that this mRNA may contain an R;Tamura, K.; Kobayashi, M.; Ishii, Y.; Tamura, T.; Hashimoto, K.; J. Biol. Chem. 264, 5616-5621, 1989
A;Title: Primary structure of rat insulin-like growth factor-I and A;Reference number: A32857; MUID:89174609; PMID:2538424
A;Accession: A32857
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A;Residues: 'MSAPP',22-153 <KA2>
A;Experimental source: liver
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A; Residues: 27-153 < KAT>
A; Cross-references: GB:D00698; NID:g220780; PIDN:BAA00604.1;
A; Experimental source: liver
A; Experimental source: liver
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C;Date: 16-Mar-1989 #sequence_revision 16-Mar-1989 #text_change 21-Jul-2000
C;Accession: B27804; A27849; JH0133; A28504; JN0088; A32857; A61096
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262, 7894-7900, 1987
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Pred. No. 9.5e-40;
3; Mismatches 12
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GPETLCGAELVDALQFVCGPRGFYFNKPTVYGSSIRRAPQTGIVDECCFRSCDLRRLEMY

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C;Species: Mus musculus (house mouse)
C;Date: 30-Jun-1988 #sequence revision 30-Jun-1988 #text_change 16-Jul-1999
C;Accession: A25540; I55295; T59090; B25540
R;Bell, G.I.; Stempien, M.M.; Fong, N.M.; Rall, L.B.
Nucleic Acids Res. 14, 7873-7882, 1986
A;Title: Sequences of liver cDNAs encoding two different mouse insulin-like grown, R;Reference number: A93643; MUID:87040760; PMID:3774549
A;Reference number: A93643; MUID:87040760; PMID:3774549
A;Residues: 1-127 <BEL>
A;Cross-references: GBE:X04480; NID:951801; PIDN:CAA28168.1; PID:951802
A;Tollefsen, S.E.; Lajara, R.; McCusker, R.H.; Clemmons, D.R.; Rotwein, P.
J. Biol. Chem. 264, 13810-13817, 1989
A;Reference number: I55295; MUID:89340472; PMID:2474537
A;Recession: I55295
A;Cateria Ford Mid: Armonic Market (house)
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                                                                                                                          A;Gene: igf1
C;Superfamily: insulin
C;Seywords: alternative splicing; growth factor
C;Keywords: alternative splicing; growth factor
F;1-22/Domain: signal sequence #status predicted <SIG>
F;23-127/Product: insulin-like growth factor IA (active) #sta
F;23-51/Domain: insulin chain B-like #status predicted <DOB>
F;23-63/Domain: insulin connecting C peptide-like #status pre
F;64-84/Domain: insulin chain A-like #status predicted <DOA>
F;85-92/Domain: D peptide #status predicted <DOD>
F;85-92/Domain: carboxyl-terminal propeptide (E peptide) #st
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A;Residues: 49-53,'X',55-65 <CAN>
C;Superfamily: insulin
C;Keywords: alternative splicing; growth factor
F;49-118/Product: insulin-like growth factor I:
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A; Residues: 49-108 < RE2>
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N;Alternate names: IGF-IA; somatomedin C
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   Matches
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95.3%;
                                  73.5%;
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Score 440; DB 2;
Pred. No. 1.8e-37;
1; Mismatches 4
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Pred. No. 1e-37;
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PMID:3467309
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insulin-like growth factor I precursor - rat C;Species: Rattus norvegicus (Norway rat) C;Date: 09-Jun-1988 #sequence_revision 09-Jun-1988 #text_change 16-Jul-1999 C;Accession: A27804; 165202 R;Shimatsu, A.; Rotwein, P. J. Biol. Chem. 262, 7894-7900, 1987 J. Biol. Chem. 262, 7894-7900, 1987 A;Title: Mosaic evolution of the insulin-like growth factors. Organization, A;Reference number: A27804; MUID:87222423; PMID:3034909
                                                                                                                                                                                                                                                                                                                                          insulin-like growth factor I precursor form 2 - rat C;Species: Rattus norvegicus (Norway rat) C;Date: 28-Feb-1992 #sequence_revision 28-Feb-1992 #text_change 16-Jul-1999 C;Accession: B40912 Requence_revision 28-Feb-1992 #text_change 16-Jul-1999 C;Accession: B40912 Requence_revision 28-Feb-1992 #text_change 16-Jul-1999 C;Accession: B40912 Requence_revision Jr., C.T.; Lesky, S.R.; Lowe Jr., W.L.; Seaman, W.T.; LeRoith, D. Mol. Endoctinol. 1, 243-248, 1987 Mol. Endoctinol. 1, 243-248, 1987 Mol. Endoctinol. 1, 243-248, 1987
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B40912
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A;Title: Rat IGF-I cDNA's contain multiple 5'-untranslated
A;Reference number: I52218; MUID:87298553; PMID:3619921
A;Accession: I65202
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Molecule type: mRNA
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A27804
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                                                                                                                                                            A;Molecule type: mRNA
A;Residues: 1-127 <ROB>
A;Cross-references: GB:M15481; NID:g204753;
C;Superfamily: insulin
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C;Superfamily: insulin
C;Keywords: alternative splicing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Residues:
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A; Residues: 1-181 <SHI>
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Best Local
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GPETLCGAELVDALQFVCGPRGFYFNKFTVYGSSIRRAPQTGIVDECCFRSCDLRRLEMY
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                                                                     Score 464; DB 2;
Pred. No. 6.5e-40;
); Mismatches 1
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l; Mismatches
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No. 4.5e-47;
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                                                                                                                                                                                     PIDN: AAA41387.1;
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C;Reywords: alternative splicing; amidated carboxyl end; growth factor; plasma C;Reywords: alternative splicing; amidated <SIG> F;1-21/Domain: signal sequence #status predicted <SIG> F;22-48/Domain: propeptide #status predicted <PRO> F;49-118/Product: insulin-like growth factor I #status predicted <CHB> F;49-77/Domain: insulin chain B-like #status predicted <CHB> F;78-89/Domain: insulin connecting C peptide-like #status predicted <CHA> F;90-110/Domain: insulin chain A-like #status predicted <CHA> F;111-118/Domain: D peptide #status predicted <CHB> F;111-15/Domain: carboxyl-terminal propeptide (E peptide) #status predicted <CHE> F;151-172/Product: insulin-like growth factor IB-El amide #status predicted <MA2>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Cross-references: GB:X56774; GB:S61860; NID:g32991; PIDN:CAA40093.1; A;Experimental source: anaplastic oligodendrogiioma A;Note: sequence modified after extraction from NCBI backbone A;Note: the authors translated the codon CAG for residues 124 and 133 a A;Note: sequence extracted from NCBI backbone (NCBIN:133058) R;Siegfried, J.M.; Kasprzyk, P.G.; Treston, A.M.; Mulshine, J.L.; Quinn Proc. Natl. Acad. Sci. U.S.A. 89, 8107-8111, 1992 Proc. Natl. Acad. Sci. U.S.A. 89, 8107-8111, 1992 A;Title: A mitogenic peptide amide encoded within the E peptide domain A;Reference number: A2264; MUID:92390398; PMID:1325646 A;Contents: annotation; IBE-1; amidated carboxyl end C;Comment: For an alternative splice form, see PIR:IGHU1.
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C;Date: 30-Jun-1987 #sequence_revision 30-Jun-1987 #text_change
C;Accession: A0161; A26181; S30540; B48960; A42664
R;Rotwein, P.; Pollock, K.M.; Diddier, D.K.; Krivi, G.G.
J. Biol. Chem. 261, 4828-4832, 1986
A;Title: Organization and sequence of the human insulin-like gro
A;Reference number: A92581; MUID:86168194; PMID:2937782
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Cross-references: EMBL:X56774; NID:g32991; PIDN:CAA40093.
R;Sandberg-Nordqy1st, A.C.; Stahlbom, P.A.; Reinecke, M.; C
Cancer Res. 53, 2475-2478, 1993
A;Title: Characterization of insulin-like growth factor 1 in A;Reference number: A48960; MUID:93265440; PMID:8495408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Molecule type: mRNA, A;Molecule type: mRNA, R;Residues: 1-195 <ROT2> A;Residues: 1-195 <ROT2> A;Cross-references: GB:M11568; NID:g183111; PIDN:AAA52539.1; PID:g183112 A;Cross-references: GB:M1568; NID:g183111; PIDN:AAA52539.1; PID:g183112 A;Csandberg Nordqvist; A.C.; Stahlbom, P.A.; Lake, M.; Sara, V.R. submitted to the RMBL Data Library, November 1990 A;Description: Nucleotide sequence of the human fetal brain IGF-1b. A;Reference number: S30540
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Proc. Natl. Acad. Sci. U.S.A. 83, 77-81, 1986
A;Title: Two insulin-like growth factor I messenger RNAs
A;Reference number: A26181; MUID:86094355; PMID:3455760
A;Accession: A26181
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A;Introns: 21/3; 74/1; 134/3
C;Superfamily: insulin
C;Keywords: alternative splicing;
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A;Cross-references: GDB:120081;
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A;Residues: 1-195 <SA2>
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A;Residues: 1-195 <ROT1>
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A;Status: preliminary A;Molecule type: mRNA A;Residues: 1-133 <ROB>

A;Reference number: A40912; MUID:88288198; PMID:3453891 A;Accession: A40912

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ALIGNMENTS

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insulin-like growth factor I precursor form 1 - rat C;Species: Rattus norvegicus (Norway rat) C;Species: Rattus norvegicus (Norway rat) C;Date: 28-Feb-1992 #sequence_revision 28-Feb-1992 #text_change 16-Jul-1999 C;Accession: A40912 R;Roberts Jr., C.T.; Lasky, S.R.; Lowe Jr., W.L.; Seaman, W.T.; LeRoith, D. Mol. Endocrinol. 1, 243-248, 1987 Mol. Endocrinol. 1, 243-248, 1987

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R;Shimatsu, A.; Rotwein, P.
Nucleic Acids Res. 15, 7196, 1987
A;Title: Sequence of two rat insulin-like growth factor A;Reference number: A26859; MUID:88015572; PMID:3658684
A;Accession: A26859
                                                            A;Cross-references: GB:X06107; GB:M32260; GB:Y00429; C;Superfamily: insulin C;Keywords: alternative splicing; growth factor
                                                                                                                                                                                                                                                                                             RESULT
A26859
                                                                                                                                                                                                                               insulin-like growth factor IB precursor - rat C;Species: Rattus norvegicus (Norway rat) C;Date: 19-Nov-1988 #sequence_revision 19-Nov-1988 C;Accession: A26859
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A; Residues: 1-159 < SHI>
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PIR; A41399; A41399;
HSSP; P01343; 1GF1.
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Pfam; PF00049; Insulin; 1.
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modified and this statement is not removed.
entities requires a license agreement (See l
or send an email to license@isb-sib.ch).
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SMART; SM00078; IIGF; 1.
PROSITE; PS00262; INSULIN; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ballard F.J., Johnson R.J., Owens P.C., Francis G.L., Upton F.M., McMuttry J.P., Wallace J.C., "Chicken insulin-like growth factor-I: amino acid sequence, radioimmunoassay, and plasma levels between strains and during
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Rotwein P., Kajimoto Y.;
"Structure of the chicken insulin-like growth factor I gene reveals conserved promoter elements.";
J. Biol. Chem. 266:9724-9731(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 [3]
SEQUENCE OF 49-118.
MEDLINE-91106695; PubMed=2272467;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                growth."
                                                                                                                                                                                                                                                                                                                                                                                                    nsulin family;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FUNCTION: The insulin-like growth factors, are structurally and functionally related much higher growth-promoting activity.

SUBCELLULAR LOCATION: Secreted.

SUMILARITY: Belongs to the insulin family.
                                                         109 CAPIKPPKSARSVRAQRHTDMPKAQK----EVH----LKNTSRGNT 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Comp. Endocrinol. 79:459-468(1990).
                                                                                                                 49
                                                                                   13
                                                                                                                                                                       Similarity 75; Conserv
                                                                           CVRCKPTKSARSIRAQRHTDMPKTQKSQPLSTHKKRKLQRRRKGST 106
                                                                                                                                           GPETICGAELVDALQFVCGPRGFYFNKPTVYGSSIRRAPQTGIVDECCFRSCDLRRLEMY 60
                                                                                                                 GPETICGAELVDALQFVCGDRGFYFSKPTGYGSSSRRLHHKGIVDECCFQSCDLRRLEMY 108
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78
78
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119
54
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66
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88,
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153 E
96 B
109 B
109 B
100 B
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118
77
89
110
               'n
                                                                                                                                                                       64.1%; Score 384; DB 1; 70.8%; Pred. No. 9.8e-35; tive 6; Mismatches 17
                2004, 08:05:42
                                                                                                                                                                                                                                                                                                                                                                                                    factor; Plasma; Signal.
                                                                                                                                                                                                                                          D.
E PEPTIDE.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                             INSULIN-LIKE GROWTH FACTOR I.
B.
C.
                                                                                                                                                                                                                               AAE13FDED13EE2F8 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         oved. Usage by and for commercial (See http://www.isb-sib.ch/announce/
                                                                                                                                                                       17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      , isolated from plasma, to insulin but have a
                                                                                                                                                                                                 Length 153;
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IGP1_COTUA
ID IGF1_COTUA
ID IGF1_COTUA
AC P51462;
DT 01-OCT1996 (
DT 01-OCT-1996 (
DT 10-OCT-2003 (
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EMBL; X69472; CAA49231.1; J
EMBL; X69473; CAA49231.1; J
EMBL; X69474; CAA49231.1; J
EMBL; X69475; CAA49231.1; J
EMBL; X69475; CAA49232.1; J
EMBL; X69474; CAA49232.1; J
EMBL; X69474; CAA49232.1; J
EMBL; X69475; CAA49232.1; J
EMBL; X69475; CAA49232.1; J
EMBL; X69475; CAA49232.1; J
                                                                                                                                                                                                                                                                                                                                                                      CONFLICT
SEQUENCE
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DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Insulin family;
SIGNAL 1
PROPEP ?
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DOMAIN
DOMAIN
DOMAIN
Kida S., Iwaki M., Nakamura A., Miura Y., Takenaka A., Takahashi S. Noguchi T.;
"Insulin-like growth factor-I messenger RNA content in the oviduct Japanese quail (Coturnix coturnix japonica): changes during growth and development or after estrogen administration.";
                                                                                              Coturnix coturnix japonica (Japanese quail).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROPEP
CHAIN
                                      MEDLINE=95187621;
Kida S., Iwaki M.,
                                                                                                                                              01-OCT-1996 (Rel. 34, Created)
01-OCT-1996 (Rel. 34, Last sequence upd
10-OCT-2003 (Rel. 42, Last annotation u
insulin-like growth factor I precursor
                                                          SEQUENCE FROM N.A.
                                                                                          Coturnix.
                                                                                                                              (Fragment).
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                                                                                                                                                                                                                                                                                                                                          Local
                                                                             _TaxID=93934;
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; P01343; 1GF1.
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                                                                                                                                                                                                                                                                                                                              76;
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SM00078; ILGF; 1.
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                                                                                                                                                                                                                                                                                                   GPETLCGAELVDALQFVCGPRGFYFNKPTVYGSSIRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                                      GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSSRRAPQTGIVDECCFRSCDLRRLEMY 109
                                                                                                                                                                                                                                                  CAPLKAAKSARSVRAQRHIDMPKAQK 135
                                                                                                                                                                                                                                                                    CVRCKPTKSARSIRAQRHTDMPKTQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PS00262;
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154 AA;
                                                                                                                                                                                                                                                                                                                               Conservative
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                                   PubMed=7881819;
Pubmed=7881819;
Pubmed=7881819;
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B.
C.
C.
A.
D.
E PEPTIDE.
E PERTIDE.
EY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                  isoform C).
/FTICLUSE 002706.
Missing (In isoform F
/FTICLUSE 002707.
A -> V (IN REF. 4).
A -> V (IN REF. 4).
                                                                                                                                                                                                                                                                                                                                        Score 410;
Pred. No. 1
                                                                                                                                                                                                 PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Plasma;
                                                                                                                                                                                                                                                                                                                               Mismatches
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ion update)
rsor (IGF-I)
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..5e-37;
les 9;
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                                                                                                                                                  (Somatomedin)
                                                                                                                                                                                                                                                                                                                                                Length 154;
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RESULT
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Best Local S
Matches 75
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InterPro; IPR004025; Ins/IGF/re Pfam; PF00049; Insulin; 1.
PRINTS; PR00277; INSULINB.
SMART; SM00078; IIGF; 1.
PROSITE; PS00262; INSULIN; 1.
                                                                                                                                                                                01-NOV-1990
01-NOV-1990
10-OCT-2003
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CHICK
Cr 15
                                                                                                                                      Gallus gallus (Chicken).
Eukaryota; Metazoa; Chordata;
                                                                                                                                                                                                                                                                                                                                                                                                                        DISULFID
DISULFID
DISULFID
                                          "Structure and precursor.";
                                                             MEDLINE=90190648; PubMed=2628728; Kajimoto Y., Rotwein P.;
                                                                                                                                                              IGF1
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DOMAIN
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 SEQUENCE OF 1-21 F
MEDLINE=91236750;
                                                                                  SEQUENCE FROM N.A.
                                                                                                       NCBI_TaxID=9031;
                                                                                                                            Archosauria;
                                                                                                                                                                        Insulin-like
                                                                                                                                                                                                                  P18254;
                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CHAIN
DOMAIN
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         entities requires a license agreement (S or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             nsulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            p. Biochem. Physiol. 109C:191-204(1994).
FUNCTION: The insulin-like growth factors,
are structurally and functionally related
much higher growth-promoting activity.
SUBCELLULAR LOCATION: Secreted.
SIMILARITY: Belongs to the insulin family.
                              Endocrinol. 3:1907-1913(1989)
                                                                                                                                                                                                                            CHICK
CHICK
                                                                                                                                                                                                                                                                                 08
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61
82
90
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37
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                                                                                                                                                                                                                                                                                                                                             GPETLCGAELVDALQFVCGPRGFYFNKPTVYGSSIRRAPQTGIVDECCFRSCDLRRLEMY
                                                                                                                                                                                                                                                                               CAPIKPPKSARSVRAQRHTDMPKAQK----EVH---
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                                                                                                                                                                                                                                                                                                                                                                                                             124 AA;
                                                                                                                                                                   (Rel. 16, Created)
(Rel. 16, Last sequence update)
(Rel. 42, Last annotation updat)
growth factor I precursor (IGF)
                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                   Rotwein P.;
                                                                                                                              Aves;
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                                                                                                                                                                                                                            STANDARD;
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          FROM N.A.
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PubMed=2033062
                                                                                                                            Neognathae;
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489
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124
81
71
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70.8%;
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                                                  of a chicken
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D.
E PEPTIDE.
BY SIMILARITY.
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BY SIMILARITY.
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Pred. No. 7.7e-35;
6; Mismatches 17
                                                                                                                         Craniata; Vertebrata; Euteleostomi; Galliformes; Phasianidae; Phasiani
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INSULIN-LIKE
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                                                                                                                                                                      update)
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                                                   insulin-like
                                                                                                                                                                                                                            A
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                                                                                                                           Phasianinae;
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Matches 77
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EMBL; S76122; AAD14209.1; -.
PIR; S12672; IGBO1.
HSSP; P01343; IGF1.
InterPro; IPR004825; Ins/IGF/relax.
Pfam; PF00049; Insulin; 1.
PRINTS; PR00277; INSULINB.
SMART; SM00078; IIGF; 1.
PROSITE; PS00262; INSULIN; 1.
PROSITE; PS00262; INSULIN; 1.
                                                                                                                    TIGF1 SHEEP P10763; 01-JUL-1989 01-FEB-1991 10-OCT-2003
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                                                                                                                                                                                                                                                                                                                                                                                                                                      SIGNAL
PROPEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Biochem.
                                                                 Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                          Ovis aries (Sheep)
                                                                                                                                                                       SHEEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               torm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Insulin-like growth factors 1 and and biological activities compared
TISSUE=Liver;
MEDLINE=90126234;
Wong E.A., Ohlsen
                                                                                                            Insulin-like
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Insul
                              EQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUBCELLULAR LOCATION: Secreted.
SIMILARITY: Belongs to the insulin family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FUNCTION: The insulin-like growth factors, are structurally and functionally related tmuch higher growth-promoting activity.
SUBCELLULAR LOCATION: Secreted.
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                               FROM
                                                            Caprinae;
                                                                                                                                                                                                              CAPLKPAKSARSVRAQRHTDMPKAQK 135
                                                                                                                                                                                                                                CVRCKPTKSARSIRAORHTDMPKTQK
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79
112
120
67
                                                                                                           (Rel. 11, Created)
(Rel. 17, Last sequence update)
(Rel. 42, Last annocation update)
growth factor I precursor (IGF-I)
                                                                                                                                                                                                                                                                                             Conservative
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                                                                                                                                                             STANDARD;
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  PubMed=2575490;
S.M., Godfredson
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78
90
111
111
119
154
97
110
                                                              BTAO
                                                                     Chordata; Craniata; Vertebrata; Eute. Cetartiodactyla; Ruminantia; Pecora;
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B.
C.
A.
D.
E PEPTIDE.
BY SIMILARITY.
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BY SIMILARITY.
                                                                                                                                                                                                                                                                                            Score 418; DB 1
Pred. No. 2e-38;
1; Mismatches
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   J.A.,
                                                                                                                                                                                                                                  86
                                                                                                                                                             154
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   Dean
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   Д.
М.,
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    Wheaton
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MEDLINE=93221682; PubMed=8466647; Ohlsen S.M., Dean D.M., Wong E.A.; Characterization of multiple transcription ovine insulin-like growth factor-I gene and three alternatively spliced transcripts."; DNA Cell Biol. 12:243-251(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRAIN=Coopworth; TISSUE=Liver; MEDLINE=9325051; PubMed=8485157; Demmer J., Hill D.F., Petersen G.B.; Ucharacterization of two sheep insulin-like with different 5'-untranslated regions."; Elochim. Biophys. Acta 1173:79-80(1993).
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[2]
[2]
SEQUENCE FROM N.A.
TISSUE=Liver;
   TEMBEL / TEM
                                                                                                                                                                                                                                                                                                                                                                                            This SWISS-PROT entry is copyright. It is produced through a collab between the Swiss Institute of Bioinformatics and the EMBL outst the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for commodified and this statement is not removed.
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MEDLINE=89136887; PubMed=2537174;
Francis G.L., McNeil K.A., Wallace
"Sheep insulin-like growth factors
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Dickson M.C., Saunders J.C., Gilmour R.S.;
"The ovine insulin-like growth factor I gene: characterization, expression and identification of a putative promoter.";
                                                                                                                                                                                                                                                                                                                                use by non-profit institutions as long modified and this statement is not remove entitles requires a license agreement (so or send an email to license@isb-sib.ch).
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Hey A.W., Browne C.A., Simpson R.J., Thorburn
"Simultaneous isolation of insulin-like growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           [4]
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SEQUENCE FROM N.A.
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SUBCELLULAR LOCATION: Secreted.
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EMBL; X52077; CAA36296.1; -
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Insulin-like growth
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                                                                                                                                                                                      "The porcine insulin-like growth factor-I gene: expression of alternate transcription sites.";
J. Mol. Endocrinol. 11:201-211(1993).
i- FUNCTION: The insulin-like growth factors, i are structurally and functionally related to much higher growth-promotting activity.
i- SUBCELIULAR LOCATION: Secreted.
i- SUMILARITY: Belongs to the insulin family.
                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=89096956; PubMed=3211153;
Tavakkol A., Simmen F.A., Simmen R.C.M.;
"Porcine insulin-like growth factor-I (pIGF-I): complementary
deoxyribonucleic acid cloning and uterine expression of messenger
ribonucleic acid encoding evolutionarily conserved IGF-I peptides
Mol. Endocrinol. 2:674-681(1988).
                                                                                                                                                                                                                                                                                                   STRAIN-White Landrace; TISSUE-Liv
MEDLINE=94128209; PubMed=8297476;
Weller P.A., Dickson M.C., Huskis
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Mammalia;
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MEDLINE=90175014; PubMed=2308858;
Fotsis T., Murphy C., Gannon F.;

"Nucleotide sequence of the bovine
(IGF-1) and its IGF-1A precursor.";
Nucleic Acids Res. 18:676-676(1990)
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Mammalia; Eutheria; Ce
Bovidae; Bovinae; Bos.
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MEDLINE-95172127; PubMed-7867698;
Schmidt A., Einspanier R., Amselgruber W.,
"Expression of insulin-like growth factor:
oviduct during the oestrous cycle.";
exp. Clin. Endocrinol. 102:364-369(1994).
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10-OCT-2003
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P07455;
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SEQUENCE OF 50-119.
MEDLINE=88268820; Pu
Francis G.L., Upton
                                                                         cross-reactivities.";
J. Biol. Chem. 261:569-575
                                                                                                            "Insulin-like growth serum. Purification,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bos taurus
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                                                                                                                           Honegger A., F
"Insulin-like
                                                                                                                                                                  MEDLINE=86085881;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=9913;
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42, Last
vth factor
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   PubMed=3390164;
on F.M., Ballard
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     Ballard
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annotation update)
I precursor (IGF-I)
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BY SIMILARITY.
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Pred. No. 2e-38;
1; Mismatches
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1 (IGF-1)
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       K.A.,
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Best Local
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                                                                                              EMBL; D11378; BAA01976.1; -.
EMBL; D26119; BAB77524.1; JOINED.
EMBL; D26116; BAB77524.1; JOINED.
EMBL; D26117; BAB77524.1; JOINED.
EMBL; D26118; BAB77524.1; JOINED.
EMBL; D26118; BAB77524.1; JOINED.
PIR; JC2483; JGF1.
InterPoro; IPR004825; INS/IGF/relax.
Pfam; PF00049; Insulin; 1.
PRINTS; PR00277; INSULINB.
SMART; SM00078; IIGF; 1.
PROSITE; PS00262; INSULIN; 1.
INSULIN family; Growth factor; Plasma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        P51457;
P51457;
01-OCT-1996 (Rel. 34, Created)
16-OCT-2001 (Rel. 40, Last sequence update)
15-MAR-2004 (Rel. 43, Last amoutation update)
15-MAR-21ike growth factor I precursor (IGF-I)
                                                                                                                                                                                                                                                                                                                                the European Bioinformatics Institute. The use by non-profit institutions as long modified and this statement is not removed. entitles requires a license agreement (See or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "Tissue- and development-specific expression of growth factor-I (IGF-I) mRNAs.";
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Mammalia; Eutheria; Cetar
Bovidae; Caprinae; Capra.
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     SIGNAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mikawa S., Yoshikawa G.-I., Yamano Y.,
Utsumi K.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=95290780; PubMed=7772848;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM STRAIN=Shiba;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sci Biotechnol. Biochem. 59:759-761(1995).
FUNCTION: The insulin-like growth factors, is are structurally and functionally related to much higher growth-promoting activity.
SUBCELIDUAR LOCATION: Secreted.
TISSUE SPECIFICITY: Expressed in all tissues lung, liver, spleen, uterus, ovary, testis, h
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SIMILARITY: Belongs to the insulin family.
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BY SIMILARITY INSULIN-LIKE (
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Pred. No. 5.7e-39;
1; Mismatches 7;
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                                                                                                     Plasma; Signal
                                                                       SIMILARITY
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                                                                                                                                                                                                                                                                                                                                                There are no restrictions on its long as its content is in no way moved. Usage by and for commercial (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sakai H.,
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01-FEB-1994
10-OCT-2003
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the European Bioinformatics Institute. The
use by non-profit institutions as long
modified and this statement is not removed.
entities requires a license agreement (See
or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Delafontaine P., Lou H., Harrison D.G., Bernstein "Sequence of a cDNA encoding dog insulin-like grov Gene 130:305-306(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=9615;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Canis familiaris (Dog).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata,
Mammalia, Eutheria, Carnivora, Fissipedia, Canidae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
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HSSP; P01343; 1GF1.
                                                                                                                                                                                     PROSITE;
                                                                                                                                                                                                                    PRINTS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=93366192; PubMed=8359700;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (Fragment).
IGF1 OR IGFIA.
                                                                                                                                                                     Insulin
                                                                                                                                                                                                                                    InterPro; IPR004825; Ins/IGF/relax.
Pfam; PF00049; Insulin; 1.
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SUBCELLULAR LOCATION: Secreted.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               SUBCELLULAR LOCATION: Secreted.
SIMILARITY: Belongs to the insulin family.
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                                                                                                                                                                                               ; PR00277; INSULINB.
SM00078; ILGF; 1.
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                                                                                                                                                                     family;
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(Rel. 28, Last sequence update)
(Rel. 42, Last annotation update)
growth factor I precursor (IGF-I)
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Pred. No. 5.8e-39;
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Euteleostomi; Canis.

-!- SIMILARITY: Belongs to the insulin family.

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SEQUENCE or ... PubMed=v_... MEDLINE=78130171; PubMed=v_... Rinderknecht E., Humbel R.E.; Rinderknecht E., Humbel R.E.; "The amino acid sequence of human insulin-like "the amino acid sequency with proinsulin."; its structural homology with proinsulin."; "iol. Chem. 253:2769-2776(1978).
                                                                                                                                            Biomed.
                                                                                                                                                                                                                                                                    Yasuda T., Kobayashi Y.;
Yasuda T., Kobayashi Y.;
Yasuda T., Kobayashi Y.;
"1H-NMR assignment and secondary structure of human insulin-like
growth factor-I (IGF-I) in solution.";
J. Blochem. 111:529-536(1992).
                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=91242464; PubMed=2036417; Conke R.M., Harvey T.S., Campbell I.D.; Cooke R.M., Harvey T.S., Campbell I.D.; "Solution structure of human insulin-like growth factor 1: a nuclear magnetic resonance and restrained molecular dynamics study."; Biochemistry 30:5484-5491(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Blundell T.L., Bedarkar S., Hum
"Tertiary structures, receptor
insulinlike growth factors.";
Fed. Proc. 42:2592-2597(1983).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEBS Lett.
[5]
                                                                                                                                                                                      Raschdorf F., Dahinden R., Maerki W., Richter W.J., Merryweather J.P., "Location of disulphide bonds in human insulin-like growth factors
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3D-STRUCTURE MODELING.
MEDLINE=83210259; PubMed=6189745;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Dull T.J., Gray A., Hayflick J.S., Ullrich A.; "Insulin-like growth factor II precursor gene organization relation to insulin gene family."; Nature 310:777-781(1984).
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Sussenbach J.S.;
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MEDLINE=91207342;
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                                                                          (IGFs) synthesized by recombinant DNA technology.";
Blomed. Environ. Mass Spectrom. 16:3-8(1988).
-!- FUNCTION: The insulin-like growth factors, isolated from plasma, are structurally and functionally related to insulin but have a much higher growth-promoting activity.
-!- SUBCELULAR LOCATION. Secreted.
-!- ALTERNATIVE PRODUCTS:
                                                                                                                                                                                                                                           DISULFIDE BONDS.
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               Name=IGF-IB;
                                             Name=IGF-IA;
                                                           Event=Alternative
                            IsoId=P01343-1; Sequence=Displayed;
IsoId≈P05019-1;
                                                                                                                                                                                                                                                                                                                                 BY NMR.
1316903; PubMed=1319992;
Chkubo T.,
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                                                            splicing; Named
Sequence=External
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insulin-like growth factor 1
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MIM; 147440;
MIM; 265850;
GO; GO:000515
GO; GO:000518
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GO; GO:000944
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EMBL; X03420; CAA27152.1;
EMBL; X03421; CAA27153.1;
EMBL; X03421; CAA27154.1;
EMBL; X03422; CAA40342.1;
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PIR, A92581;

PDB, 1GF1; 11

PDB, 2GF1; 11

PDB, 3GF1; 11

PDB, 3GF1; 11

PDB, 1B9G; 21

PDB, 1E3C; 02

PDB, 1E3C; 02

PDB, 1GZY; 02

PDB, 1GZY; 02

PDB, 1H52; 22

PDB, 1H59; 11
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EMBL; M12659; A
EMBL; M14153; A
EMBL; M14154; A
EMBL; X00173; C
EMBL; X03563; C
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                                                                                                                                                                                                                                       PRINTS; PR00277; INSULINB. SMART; SM00078; ILGF; 1.
                                                                                                                                                                                                                                                            InterPro; IPR004825; Ins/IGF/relax.
Pfam; PF00049; Insulin; 1.
SEQUENCE
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                                                                                                                                                                                                         Alternative splicing;
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                                                                                                                                                                                                                                                                                        GO:0005159; F:insulin-like growth factor receptor binding; GO:0005180; F:peptide hormone; TAS.
GO:0006280; P:cell motility; TAS.
GO:0006280; P:cell motility; TAS.
GO:0006280; P:DAA replication; TAS.
GO:0006280; P:DAA replication; TAS.
GO:0007817; P:glycolate metabolism; TAS.
GO:0007817; P:muscle development; TAS.
GO:000784; P:positive regulation of cell proliferation; TAS.
GO:0007865; P:RAS protein signal transduction; TAS.
GO:0007165; P:signal transduction; TAS.
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GO:0001501; P:skeletal
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                                                                                                                                                                                                                  ; PS00262; INSULIN; 1.
family; Growth factor; Plasma; 3D-structure;
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02-OCT-02.
02-OCT-02.
25-JUL-02.
25-JUL-02.
16-MAY-02.
03-OCT-01.
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15-OCT-94.
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SIGNAL 1
CHAIN 23
DOMAIN 23
DOMAIN 52
DOMAIN 64
DOMAIN 85
PROPEP 93
DISULFID 28
DISULFID 40
DISULFID 69
SEQUENCE 127 A
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01-AUG-1990
01-AUG-1990
10-OCT-2003
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GO; GO:0001001; P:glial cell differentiation;
GO; GO:0007399; P:neurogenesis; IMP.
InterPro; IPR004825; Ins/IGF/relax.
Pfam; PF00049; Insulin; 1.
PRINTS; PR00277; INSULINB.
SMART; SM00078; IlGF; 1.
PROSITE; PS00262; INSULIN; 1.
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                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.

TISSUE=Pancreas;

MEDLINE=90332447; PubMed=2377480;

Bell G.I., Stempien M.M., Fong N.M., Scino S.;

Bell G.I., Stempien M.M., Fong Y.M., Scino S.;

"Sequence of a cDNA encoding grinea pig IGF-I.";

Nucleic Acids Res. 18:4275-4275(1990).

-!- FUNCTION: The insulin-like growth factors, isolated fare structurally and functionally related to insulin much higher growth-promoting activity.

-!- SUBCELLULAR LOCATION: Secreted.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Cavia porcellus (Guinea pig).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
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; A25540; A
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SUBCELLULAR
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  ; X52951; CAA3
S12719; IGGP1
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(Rel. 15, Last sequence update)
(Rel. 42, Last annotation update)
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3 92 IN8
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70 B.
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84 B.
                         CAA37127.1;
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Hystricognathi; Caviidae; Cavia.
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No. 6.
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RESULT 8
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SEQUENCE FROM N.A.

MEDLINE=86108862; PubMed=3002851;
de Pagter-Holthuizen P., van Schaik F.M.A., Verduijn
van Ommen G.J.B., Bouma B.N., Jansen M., Sussenbach J
                                                                                                  MEDLINE=86108910; PubMed=2935423; le Bouc Y., Dreyer D., Jaeger F., "Complete characterization of the isolated from a newly constructed FEBS Lett. 196:108-112(1986).
                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.

MEDLINE=84068210; PubMed=6358902;

Jansen M., van Schaik F.M.A., Ricker A.T., Bul

Gabbay K.H., Nussbaum A.L., Sussenbach J.S., v

"Sequence of cDNA encoding human insulin-like
precursor.";
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                                                                                                                                                                                                                                                                                                                                                                                    "Organization and sequence of the human in gene. Alternative RNA processing produces factor I precursor peptides.";
J. Biol. Chem. 261:4828-4832(1986).
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Pfam; PF00049; Insulin; 1.
PRINTS; PR00277; INSULINB.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
MEDLINE=86168194; PubMed=2937782;
Rotwein P., Pollock K.M., Didier D.K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                     Nature 306:609-611(1983).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=9606;
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e human IGF-I :
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I nucleotide sequence
Fr cDNA library.";
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EMBL; X06043; CAA29436.1; -.
EMBL; M15647; AAA41215.1; JOINED.
EMBL; M15648; AAA41215.1; JOINED.
EMBL; M15648; AAA41215.1; JOINED.
EMBL; M15649; AAA41215.1; JOINED.
EMBL; M17714; AAA41227.1; -.
EMBL; M17335; AAA41387.1; ALT INIT.
EMBL; M17335; AAA43387.1; ALT INIT.
EMBL; M156481; AAA43387.1; ALT INIT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Tamura K., Kobayashi M., Ishii Y., Tamura T., Nakamura S., Niwa M., Zapf J.; "Primary structure of rat insulin-like growth biological activities.";
J. Biol. Cham
                                                                                                                                                                                                                                 This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the Entropean Bioinformatics Institute. There are no restructe by non-profit institutions as long as its content use by non-profit institutions as long as its content modified and this statement is not removed. Usage by and profit institutions as long as its content modified and this statement is not removed. Usage by and profit institutions as long as its content of the statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDIINE=89127259; PubMed=3221878;
Roberts C.T., Lasky S.R., Lowe W.L., Seaman W.T., Leroith D.;
"Structure for the rat insulin-like growth factor II transcriptional unit: heterogeneous transcripts are generated from two promoters by use of multiple polyadenylation sites and differential ribonucleic acid splicing.";
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[2]
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Murphy L.J., Bell G.L., Duckworth M.L., Friesen H.G.;
"Identification, characterization, and regulation of a rat
complementary deoxyribonucleic acid which encodes insulin-like growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=91103966; PubMed=1368571;
Kato H., Okoshi A., Miura Y., Noguchi T.;
"A new cDNA clone relating to larger molecular
insulin-like growth factor-I mRNA.";
Agric. Biol. Chem. 54:1599-1601(1990).
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Hoyt E.C., Lund P.K.;
"Isolation of rat testis
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Casella_S.J., Smith E.P., van Wyk J.J., Joseph D.R.,
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                                                                                                                                                                                                                                                                                                                                          SIMILARITY: Belongs to the insulin family.
                                                                                                                                                                                                                                                                                                                                                                                                                                              Biol. Chem. 264:5616-5621(1989).
FUNCTION: The insulin-like growth factors, are structurally and functionally related much higher growth-promoting activity.
SUBCELLULAR LOCATION: Secreted.
ALTERNATIVE PRODUCTS:
                                                                                                                                                                                                                                                                                                                                                                                                               Event=Alternative splicing; Named isoforms=2; Name=IGF-IA;
                B27804; B27804.
; P01343; 1GF1.
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SMART; SM00078; IIGF; 1.
PROSITE; PRO0267
                This SWISS-PROT entry is copyright. It is produced through a collab between the Swiss Institute of Bioinformatics and the EMBL outer the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for comentities requires a license agreement (See http://www.isb-sib.ch/amor send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                         Nucleic Acids Res. 14:7873-7882(1986).
-!- FUNCTION: The insulin-like growth factors, are structurally and functionally related
                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE=87040760; PubMed=3774549;
Beil G.I., Stemplen M.M., Fong N.M., Ra
"Sequences of liver cDNAs encoding two
growth factor I precursors ";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa;
Mammalia; Eutheria;
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SUBCELLULAR LOCATION: Secreted
ALTERNATIVE PRODUCTS:
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Cargill M., Altshuler D., Ireland J., Sklar P.,

Shaw N., Lane C.R., Lim E.P., Kalyanaraman N., N

Friedland L., Rolfe A., Warrington J., Lipshutz
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Yasuda T., Kobayashi Y.;
"1H-NMR assignment and secondary struc-
growth factor-I (IGF-I) in solution.";
J. Biochem. 111:529-536(1992).
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ALTERNATIVE PRODUCTS:
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); F:peptide hormone; TAS.

); P:cell mottlity; TAS.

); P:DNA replication; TAS.

1; P:glycolate metabolism; TAS.

7; P:muscle development; TAS.

1; P:positive regulation of cell p
                                                                                                                                                                                                                                                                                              STANDARD;
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P:skeletal development; TAS.
                                                                                                                                                                         (Rat).
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                  insulin-like growth factors. of the rat insulin-like grow
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RESULT 3

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Q95222; 018846;
01-NOV-1997 (Rel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for con entitles requires a license agreement (See http://www.isb-sib.ch/aror send an email to license@isb-sib.ch).
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Submitted (SEP-1997) to the EMBL/GenBank/DDBJ
-!- FUNCTION: The insulin-like growth factors,
are structurally and functionally related
much higher growth-promoting activity.
-!- SUBCELLULAR LOCATION: Secreted.
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Mammalia; Eutheria;
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HSSP; P01343; 1GF1
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                                                                                                                                                                                                                                                                                                                                                                                                               SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                               PROSITE;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IsoId=Q95222-2; Sequence=VSP_002705; SIMILARITY: Belongs to the insulin family.
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SM00078; IlGF; 1.
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SEQUENCE OF 22-50 FROM N.A.
MEDLINE=84295593; PubMed=6382022;
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Rotwein P., Pollock K.M., Didier D.K., Krivi G.G.;
"Organization and sequence of the human insulin-like growth factor gene. Alternative RNA processing produces two insulin-like growth factor I precursor peptides.";
J. Biol. Chem. 261:4828-4832(1986).
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13-AUG-1987
10-CCT-2003
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Rinderknecht E., )
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van Ommen G.J.B., Bou
"Organization of the
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Mammalia; Eutheria;
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STRUCTURE BY NMR. MEDLINE=91242464;
                                                              Blundell T.L., Bedarkar S., Humbel R.E. "Tertiary structures, receptor binding, insulinlike growth factors."; red. Proc. 42:2592-2597(1983).
                                                                                                                                                                                                          Rinderknecht E., Humbel R.E.;
"The amino acid sequence of human insulin-like
its structural homology with proinsulin.";
J. Biol. Chem. 253:2769-2776(1978).
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                                                                                                                                              3D-STRUCTURE MODELING.
MEDLINE=83210259; PubMed=6189745;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PubMed=3002851;
zen P., van Schaik F.M.A., Verduijn G.
Bouma B.W., Jansen M., Sussenbach J.S
Bouma B.W., Jansen M., Sussenbach J.S
the human genes for insulin-like growt
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  PubMed=2036417
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Primates;
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IB precursor (IGF-IB)
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Catarrhini; Hominidae;
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HSSP; P01343; 1G
MGD; MGI:96432;
                                                                                                                                                                                                                                                                                                                                                                               IGFB RAT
P08024;
01-AUG-1988
01-FEB-1991
10-OCT-2003
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                                                                         [2]
SEQUENCE
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SMART; SM00078; IIGF; 1.
PROSITE; PS00262; INSULIN; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  88
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Shimatsu A., Rotwein P.;
"Sequence of two rat insulin-like growth within the 5' untranslated region.";
                                                                                                                                                  Shimatsu A., Rotwein P., "Mosaic evolution of the sequence, and expression
                                                                                                                                        sequence, gene.";
                                                                                                                                                                                                       SEQUENCE FROM N.A.
MEDLINE=87222423; PubMed=3034909;
                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                      MEDLINE=88015572; PubMed=3658684;
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[GF1 OR IGF-]
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GC:0010001, P:glial cell differentiation;
GC:0007399; P:neurogenesis; IMP.
GC:0007399; Pineurogenesis; IMP.
GPPCO; IPR004825; Ins/IGF/relax.
m; PF00049; Insulin; 1.
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3; PS00262; INSULLN; ...
n family; Growth factor; P!
n family; Growth factor; P!
22 INS
3 92 INS
4 84 B.
N 64 84 B.
IN 65 83 C.
IN 85 92 D.
IN 85 93 D.
IN 85 92 D.
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                                                                             FROM N.A.
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ke growth factor IB p
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                                                                                                                                                                                                                                                                                      Chordata;
Rodentia;
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Pred. No. 2e-5
2; Mismatches
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Sciurognathi; Muridae;
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No. 2e-51;
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PIR; A27804, A27804.
HSSP; PD1343; IGF1.
InterPro; IPR004825; Ins,
Pfam; PF00049; Insulin;
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or send a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE-89127259; PubMed=3221878; Roberts C.T., Lasky S.R., Lowe W.L., Seaman W.T., Leroith D.; Roberts C.T., Lasky S.R., Lowe W.L., Seaman W.T., Leroith D.; "Structure of the rat insulin-like growth factor II transcriptional unit: heterogeneous transcripts are generated from two promoters by use of multiple polyadenylation sites and differential ribonucleic acid splicing."; Open Structure of the Polyadenylation sites and differential ribonucleic mol. Endocrinol. 2:1115-1126(1988).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Tamura K., Kobayashi M., Ishii Y., Tamu
Nakamura S., Niwa M., Zapf J.;
"Primary structure of rat insulin-like
biological activities.";
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Tamura K., Kobayashi M., Ishii Y.,
Nakamura S., Niwa M., Zapf J.;
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[3]
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SIMILARITY: Belongs to the insulin family.
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M15647; AAA41214.1;
M15648; AAA41214.1;
M15649; AAA41214.1;
M15649; CAA29480.1;
M15480; AAA41385.1;
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an email to license@isb-sib.ch).
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                    94.3%;
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ALIGNMENTS

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STRAIN=FYD/N; TISSUB=Liver; MEDLINE=22388257; PubMed=12477932; MEDLINE=22388257; PubMed=12477932; Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D., Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K., Hopkins R.F., Jordan H., Moore T., Max S.L., Wang J., Hsieh F., Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L., Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E., Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci F., Prange C., Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J., Richards S., Morley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., Richards S., Morley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Glibs R.A., Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A., Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G., Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C., Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.N., Krzywinski M.I., Skaleka U., Smailus D.E., "Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences "!, Shake U., Smailus D.E., "Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences "!, Shake U., Smailus D.E., "In FUNCTION: The insulin-like growth factors, isolated from plasma, are structurally and functionally related to insulin but have a "In SUBCELLULAR LOCATION: Secreted." "In Subcerted	Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Bakaryota, Metazoa; Chordata; Sciurognathi; Muridae; Murinae; Mus. NCBI_TaxID=10090; [1]	JUSE STAN STB MOUSE STAN 5018; 8-AUG-1987 (Rel. 0 5-AUG-1987 (Rel. 0 6-AUG-1987 (Rel. 4 18-Ulin-like growth 18-Ulin-like growth

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HSSP; P01343; 2GF1.
GO; GO:0005876; C:extracellular; IEA.
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MEDLINB=94296559; PubMed=8024699;

MEDLINB=94296559; PubMed=8024699;

Kavsan V.M., Grebenjuk V.A., Koval A.P., Skorokhod A.S.,

Roberts C.T.Jr., Leroith D.;

"Isolation of a second nonallelic insulin-like growth factor I gene from the salmon genome.";

DNA Cell Biol. 13:555-559(1994).

[3]
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SMART; SM00078; IIGF; 1.
PROSSITE; PS00262; INSULIN; 1.
SEQUENCE 188 AA; 20792 MW;
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MEDLINE=95032736;

MEDLINE=95032736;

KOVALL N., Kulik V., Duguay S., Plisetskaya E., Adamo M.L.,

Roberts C.T.Jr., Leroith D., Kavsan V.;

"Characterization of a salmon insulin-like growth factor I promoter.";

DNA Cell Biol. 13:1057-1062(1994).

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KAVSAN V.M., KOVAL A.P., Grebenjuk V.A., Chan S.J., Steiner D.F.,
Roberts C.T. Jr., Leroith D.;
"Structure of the Chum Salmon Insulin-Like Growth Factor I Gene.";
DNA Cell Biol. 11:729-737(1993).
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01-NOV-1996 (TrEMBLrel. 01, Last sequence
01-UTN-2003 (TrEMBLrel. 21, Last annotation
Insulin-like growth factor I precursor (Fr
Salmo salar (Atlantic salmon), raniata; Ve
Eukaryota; Metazoa; Chordata; Craniata; Ve
Actinopterygii, Neopterygii; Salmoniformes; Salmon
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Duguay S.J., Park L.K., Samadpour M., Dickhoff W.W.;
Nucleotide sequence and tissue distribution of three insu
growth factor I prohormones in salmon.";
Mol. Endocrinol. 6:1202-1210(1992).
-!- SUBCELLUAR LOCATION: SECRETED (BY SIMILARITY).
-!- SIMILARITY: BELONGS TO THE INSULIN/IGF/RELAXIN FAMILY.
EMBL; M81904; AAA18211.1; -..
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GO; GO:0005179; F:hormone activity; IEA.
GO; GO:0007582; P:physiological processes;
Interpro; IRR004825; Ins/IGF/relax.
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INSULIN-LIKE GROWTH FACTOR
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Salmonidae; Salmo.
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                                                                                                                                                                                                                                                                              DB 13;
3.6e-35;
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                                                                                                                                                                                                                                                                                             Length
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RESULT 15
P81268
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Best Local S
Matches 68
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Duguay S.J, Park L.K., Samadpour M., Dickhoff W.W.;

Duguay S.J, Park L.K., Samadpour M., Dickhoff W.W.;

Pucleotide sequence and tissue distribution of three growth factor I prohormones in salmon.";

Nol. Endocrinol. 6:1202-1210(1922).

-i- SUBCELLULAR LOCATION: SECRETED (BY SIMILARITY).

-i- SIMILARITY: BELONGS TO THE INSULIN/IGF/RELAXIN FAMELY, M81913; ARA49413.1;

-I- SIMILARITY: BELONGS TO THE INSULIN/IGF/RELAXIN FAMELY, M81913; ARA49413.1;

EMBL; M81913; ARA49413.1;

CO; GO:0005179; F:hormone activity; IEA.

GO; GO:0005179; F:hormone activity; IEA.

GO; GO:0005179; F:hormone activity; IEA.

GO; GO:0005179; F:hormone activity; IEA.

InterPro; IPR004825; Ins/IGF/relax.
                                                                                                               u1-AUG-1998 (TrEMBLrel. 07, Created)
01-AUG-1998 (TrEMBLrel. 07, Last sequence up
01-UUN-2003 (TrEMBLrel. 24, Last annotation
Insulin-like growth factor I precursor
IGF-I.1.
Oncorhynchus keta (Chum salmon).
Eukaryota; Metazoa; Chordata; Craniata;
Actinopterygii; Neopterygii; Teleostei;
Protacanthopterygii; Salmoniformes; Salm NCBI TaxID=8018;
[1]
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CHAIN
CONFLICT
NON TER
SEQUENCE
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01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
Insulin-like growth factor I precursor (Fragment).
Oncorhynchus kisutch (Coho salmon).
Sukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Euteleostei;
Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
NCBI_TaxID=8019;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Signal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE=90190659; PubMed=2628735; Cao Q.P. Duguay S.J. Plisetskaya E., Steiner D.F., Chan S.J.; Cao Q.P. Duguay S.J. Plisetskaya E., Steiner D.F., Chan S.J.; "Nucleotide sequence and growth hormone regulated expression of salmon insulin-like growth factor I mRNA."; Mol. Endocrinol. 3:2005-2010(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pfam; PF00049; Insulin; 1. PRINTS; PR00277; INSULINB. SMART; SM00078; IlGF; 1.
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                                                                                                                                                                                                                                                                                                                                               CAPVKSGKAARSVRAORHTDMPRTPKVSTAVONVDRGTERR 119
                                                                                                                                                                                                                                                                                                                                                                                       CVRCKPTKSARSIRAQRHTDMPKTQKSQPLSTHKKRKLQRR
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PS00262; INSULIN; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 155
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nilarity 67.3%;
Conservative
                                                                                                                                                                                                                                               PRELIMINARY;
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INSULIN-LIKE
R -> X (IN RE
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9; Mismatches
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Pred. No. 3
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                                         Salmonidae; Oncorhynchus
                                                                                                                                                                                                                                             188
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                                                        Euteleostei
                                                                              Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 13;
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RESULT

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AC Q9

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Best Local S
Matches 71
                                                                                                                                                                                                                                                                                                                 Q91476 PRELIMINARY; PRT; 117 AA.

Q91476;
Q914
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STRAIN=Big Qualicum River; TISSUE=Liver;
MEDLINE=9347592; PubMed=7683374;
Wallis A.E., Devlin R.H.;
"Duplicate insulin-like growth factor-I ge
T alternative splicing pathways.";
"~1 Endocrinol. 7:409-422(1993).
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-!- SIMILARITY: BELONGS TO THE INSULIN/IGF/RELAXIN FAMILY.
EMBL; U15961; AAA67267.1; --
PIR; C54270; C54270.
HSSP; P01343; 2GF1.
GO; GO:0005576; C:extracellular; IEA.
GO; GO:0005179; F:hormone activity; IEA.
GO; GO:0007582; P:physiological processes; IEA.
InterPro; IPR004825; Ins/IGF/relax.
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01-NOV-1996 (
01-NOV-1996 (
01-JUN-2003 (
Insulin-like
IGF-I.
MEDLINE=93024477; PubMed=1406698; Dickhof Duguay S.J., Park L.K., Samadpour M., Dickhof "Nucleotide sequence and tissue distribution growth factor I prohormones in salmon.";
                                                                                                                                                                                        SEQUENCE FROM N.A. TISSUE=Liver;
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Devlin R.H.
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleost 
Actinopterygii, Neopterygii; Teleostei; Euteleostei; 
Procacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
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161 AA; 17763 MW;
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Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 362.5;
Pred. No. 2.6e
.1; Mismatches
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                                                                                            Dickhoff W.W.;
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  Vertebrata; Euteleostomi;
  Euteleostei;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             update)
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                                                of three
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                                           insulin-like
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Q9IBIO
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        P SEQUENCE FROM N.A.

P SEQUENCE FROM N.A.

A Vong Q.P., Chan K.M., Cheng C.H.K.;

Vong Q.P., Chan K.M., Cheng C.H.K.;

T "Common carp insulin-like growth factor-I gene: Genomic organ

T and functional characterization of the 5'-flanking region.";

Submitted (JAN-2002) to the EMBL/GenBank/DBBU databases.

C -!- SUBCELLULAR LOCATION: SECRETED (BY SIMILARITY).

-!- SIMILARITY: BELONGS TO THE INSULIN/IGF/RELAXIN FAMILY.

R EMBL; S82374; AAB37702.2; -

R EMBL; AF465839; AAP78926.1; -

R EMBL; AF465839; AAP78926.1; -

R GG; GO:0005176; C:extracellular; IEA.

GG; GO:0005176; C:extracellular; IEA.

GG; GO:0005179; F:hormone activity; IEA.

GG; GO:0005179; F:hormone activity; IEA.

R GG; GO:0005179; Tisulin; 1

R InterPro, IPR004825; Ins/IGF/relax.

R InterPro, IPR004825; Ins/IGF/relax.

R PAINTS; PR00277; INSULINB.

R SMART; SM00078; IIGF; 1.
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Best Local S
Matches 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q9IBIO;
Q9IBIO;
01-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE=96241923; PubMed=8680527;
Liang Y.H., Cheng C.H., Chan K.M.;
"Insulin-like growth factor IBa2 is the predominantly
of IGF in common carp (Cyprinus carpio).";
Mol. Mar. Biol. Biotechnol. 5:145-152(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-OCT-2000 (TrEMBLrel. 15, Created)
01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-OCT-2003 (TrEMBLrel. 25, Last annotation updat
Insulin-like growth factor I subtype Ea2.
IGF-IEA2 OR IGF-I.
Cyprinus carpio (Common carp).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cyprinus carpio (Common carp).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;
Cyprinidae; Cyprinus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Signal.
NON TER
SIGNAL
CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                - I- SUBCELLULAR LOCATION: SECRETED (BY SIMILARITY).
- I- SIMILARITY: BELONGS TO THE INSULIN/IGF/RELAXIN FAMILY.
BMBL; M81904; AAA18212.1; - --
HSSP; P01343; 2GF1.
GO; GO:0005179; F:hormone activity; IEA.
GO; GO:0005179; F:hormone activity; IEA.
GO; GO:0007582; P:physiological processes; IEA.
InterPro; IRR00425; Ins/IGF/relax.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Endocrinol. 6:1202-1210(1992).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAPVKSGKAARSVRAQRHTDMPRTPKNLYLGIVTHLARR
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117 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 362;
Pred. No. 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              POTENTIAL.
INSULIN-LIKE GROWTH FACTOR
N97666EE2F526EAC CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .2e-35;
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                                                                                                                                                                                                                                                                                                                                                                                                       Genomic organization
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       97
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RESULT
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AC P79167
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Best Local S
Matches 77
                                                                                                          Insulin
SIGNAL
  PROPEP
CHAIN
DOMAIN
DOMAIN
DOMAIN
                                                                                                                                                      PRINTS; PR00277; INSULINB.
SMART; SM00078; IlGF; 1.
PROSITE; PS00262; INSULIN;
                                                                                                                                                                                                                                          8888
                                                                                                                                                                                                                                                                                                                                  HSSP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE OF 123-139 FROM N.A.
Nixon A.J., Toland B.D., Sandell L.J.,
Submitted (JAN-1997) to the EMBL/GenBank/DDBJ databases.
-!- FUNCTION: THE INSULIN-LIKE GROWTH FACTORS, ISOLATED I
ARE STRUCTURALLY AND FUNCTIONALLY RELATED TO INSULIN
MUCH HIGHER GROWTH-PROMOTING ACTIVITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SMART; SM00078; IIGF; 1.
PROSITE; PS00262; INSULIN;
NON TER 1 1
SEQUENCE 133 AA; .14674 N
                                                                                                                                                                                                                       InterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=97013467; PubMed=8860303; Otte K., Rozell B., Gessbo A., Engstrom
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Equus caballus (Horse).
Eukaryota; Metazoa; Chordata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ol.MAY-1997 (TrEMBLrel. 03, Created)
01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-OCT-2003 (TrEMBLrel. 24, Last amoutation update)
Insulin-like growth factor IB precursor (IGF-IB) (Somatomedin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-MAY-1997
01-OCT-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            te K., Rozell B., Gessbo A., Engstrom W.;
loning and sequencing of an equine insulin-like
d its expression in fetal and adult tissues.";
n. Comp. Endocrinol. 102:11-15(1996).
                                                                                                                                                                                                                  GO:0005576; C:extracellular; IEA.
GO:0008083; F:gyrowth factor activity; IEA.
GO:0005179; F:hormone activity; IEA.
GO:0007582; P:physiological processes; IEA
erPro; IPR004825; Ins/IGF/relax.
                                                                                                                                                                                                                                                                                                                                                                                            SIMILARITY: BELONGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SUBCELLULAR LOCATION: SECRETED. ALTERNATIVE PRODUCTS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Event=Alternative
                                                                                                                                                                                                                                                                                                                                                    U28070;
U85271;
                                                                                                                                                                                                                                                                                                                                  P01343;
                                                                                                                                                                                                                                                                                                                                                                                            IsoId=P51458-1; Sequence=External;
MILARITY: BELONGS TO THE INSULIN/IGF/RELAXIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                          IsoId=P79167-1; Sequence=Displayed;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              89
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                                                                                                                                                                                                                                                                                                                        ; AAA68952.1; -.; AAB47484.1; -.; 2GF1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
    49
49
78
90
  Growth
7
48
118
77
89
110
                                                                                                                                                         INSULIN; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Chordata; Craniata; Vertebrata;
Perissodactyla; Equidae; Equus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      69.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      splicing; Named isoforms=2;
                                                                                                                                 factor;
BY SIMILARITY INSULIN-LIKE (B. C. A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 418; DB 6
Pred. No. 5e-42;
1; Mismatches
                                                                                                                                 Signal; Alternative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A6991DBCB75C103B CRC64;
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HSSP; P01343; 2GF1.
GO; GO:0005576; C:extracellular; IEA.
GO; GO:0005179; F:hormone activity; IEA.
GO; GO:0007582; P:physiological processes; II
InterPro; IPR004825; Ins/IGF/relax.
Pfam; PF00049; Insulin; 1.
PRIN'S; PR00277; INSULINB.
SMART; SN00078; IIGF; 1.
                                                                                                                                                                                                                               PROSITE;
Signal.
SIGNAL
CHAIN
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.

STRAIN-Big 6 ML Tom; TISSUE-Liver;

Czerwinski S.M., Ashwell C.M., McMurtry J.P.;

Czerwinski S.M., Ashwell C.M., McMurtry J.P.;

"Cloning of turkey insulin-like growth factor-I (IGF-I).";

Submitted (JUN-1998) to the EMBL/GenBank/DDBJ databases.

-!- SUBCELLULAR LOCATION: SECRETED (BY SIMILARITY).

-!- SIMILARITY: BELONGS TO THE INSULIN/IGF/RELAXIN FAMILY.

EMBL; AF074980; AAC26006.1; -.
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01-NOV-1998
01-JUN-2003
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SEQUENCE
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Archosauria; Aves;
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                                                                                                      GPETICGABLVDALQFVCGPRGFYFNKPTVYGSSIRRAPQTGIVDBCCFRSCDLRRLEMY
                                 CVRCKPTKSARSIRAQRHTDMPKTQKSQPLSTHKKRKLQRRRKGST
                                                                                                                                                                                                                                                                                                               PS00262;
CAPIKPPKSARSVRAQRHTDMPKAQ-
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Neognathae; Galliformes;
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69.8%;
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Last sequence up
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                                                                                                                                                  Score 384; DB 13;
Pred. No. 6.7e-38;
7; Mismatches 17
                                                                                                                                                                                                                               POTENTIAL.
INSULIN-LIKE GROWTH
SAF1E5B8D13C70B5 (
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mes; Phasianidae; Meleagris.
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- KELHLIONTSRGNT
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CRC64;
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Q9NP10;
01-OCT-2000
01-OCT-2000
01-JUN-2003
                                     Insulin-like
IGF1.
Homo sapiens
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GO; GO:0005576; C:extracellular; IEA.
GO; GO:0005179; F:hormone activity; IEA.
GO; GO:0007582; P:physiological processes;
InterPro; IPR004825; Ins/IGF/relax.
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"Human insulin-like growth factor I and II messenger RNA:
"complementary DNA and analysis of expression.";
Meth. Enzymol. 146:239-248(1987).
-!- SUBCELLULAR LOCATION: SECRETED (BY SIMILARITY).
-!- SIMILARITY: BELONGS TO THE INSULIN/IGF/RELAXIN FAMILY.
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HSSP; P01343; 2GF1.
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[1]
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Mammalia; Eutheria;
          Eukaryota;
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MEDLINE=88065102; PubMed=3683205;
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S; PR00277; INSULINB.
; SM00078; IlGF; 1.
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      ns (Human)
Metazoa;
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Primates;
Chordata;
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Catarrhini;
          Craniata;
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          Vertebrata;
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Insulin-like (
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--- SUBCELLULAR LOCATION: SECRETED (BY SIMILARITY).

--- SIMILARITY: BELONGS TO THE INSULIN/IGF/RELAXIN FAMILY.

EMBL; M37484; AAA52789.1; --

BIR; A36552; A36552.

HSSP; P01343; 2GF1.

GO; GO:0005576; C:extracellular; IEA.

GO; GO:0005576; C:extracellular; IEA.

GO; GO:000579; F:hormone activity; IEA.

GO; GO:000579; F:hormone activity; IEA.

InterPro; IP800485; Ins/IGF/relax.

PEAM; PF00049; Insulin; 1.

DEAM; PF00049; Insulin; 1.
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SEQUENCE
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                              GO; GO:0005576; C:extracellular; IEA.
GO; GO:0005179; F:hormone activity; IEA.
GO; GO:0007582; P:physiological processe
InterPro; IPR004825; Ins/IGF/relax.
Pfam, PF00049; Insulin; 1.
                                                                                                                                                                                            -!- SUBCELLULAR LOCATION: SECRETED (BY SIMILARITY).
-!- SIMILARITY: BELONGS TO THE INSULIN/IGF/RELAXIN
EMBL; AF210387; AAF72409.1; -.
EMBL; AF210385; AAF72409.1; JOINED.
EMBL; AF210386; AAF72409.1; JOINED.
EMBL; AF210386; AAF72409.1; JOINED.
EMBL; AF210386; AAF72409.1; JOINED.
EMBL; AF210386; AAF72409.1; JOINED.
                                                                                                                                                                                                                                                                                                                       "A primary street.";
affecting twinning rate.";
Submitted (DEC-1999) to the EMBL/GenBank/DDBJ databases.
Submitted (DEC-1999) to the EMBL/GenBank/DDBJ databases.

***TOTALINIAR LOCATION: SECRETED (BY SIMILARITY).
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Mammalia; Butheria; Cetartiodactyla; Ruminantia; Pecora;
Bovidae; Bovinae; Bos.
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SMART; SM00078; IIGF; 1.
PROSITE; PS00262; INSULIN;
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SEQUENCE FROM N.A.
MEDLINE=91187000; PubMed=2082190;
Tobin G., Yee D., Brunner N., Rotwein P.;
"A novel human insulin-like growth factor
"A normal and tumor cells.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Lien S., Karlsen A., Klemetsdal Klungland H., Aasland M., Hering "A primary screen of the bovine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
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e growth factor I (Fragment).
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137 I
; 15177 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Klemetsdal G., V
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INSULIN-LIKE GROWTH
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Ruane J., Gomez-Raya
or quantitative trait
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O1-MAY-1997 (Tremelrel 03, C
O1-MAY-1997 (Tremelrel 03, I
O1-JUN-2003 (Tremelrel 24, I
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PRINTS; PR0277; INSULINB.
SMART; SM0078; IIGF; 1.
PROSITE; PS00262; IIGULIN; 1.
NON_TER 1 1
SEQUENCE 139 AA; 15611 MW;
                                                                     Rattus sp.
Eukaryota; Metazoa; |
Mammalia; Eutheria; |
NCBI_TaxID=10118;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Chew S.L., Lavender P., Clark A.J., Ross R.J.;
"An alternatively spliced human insulin-like growth factor-I transcript with hepatic tissue expression that diverts away mitogenic IBE1 peptide.";
Endocrinology 136:1939-1944(1995).

-I- SUNCELULDAR LOCATION: SECRETED (BY SIMILARITY).
-I- SIMILARITY: BELONGS TO THE INSULIN/IGF/RELAXIN FAMILY.
     PARTIAL SEQUENCE FROM N.A.
MEDLINE=87222423; PubMed=3034909;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GO; GO:0005576; C:extracellular; IB;
GO; GO:0005179; F:hormone activity;
GO; GO:0007582; P:physiological proc
InterPro; IPR004825; Ins/IGF/relax.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=95237119; PubMed=7720641;
Chew S.L., Lavender P., Clark A.J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens (Human)
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                                                                                                          Chordata;
Rodentia;
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Primates;
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Last seq
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Pred. No. 3.3e-
2; Mismatches
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                                                                                                                                                                                                                                                                                                                      PRT;
                                                                                                       Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Rat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
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annotation update)
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Best Local S
Matches 82
  Query Match
                                                                     60,770 full-length cDNAs.";

Nature 420:563-573 (2002).

EMBL; AKO81019; BAC38117.1; -.

MGD; MGI:444166; C730016P09Rik.

GO; GO:0005576; C:extracellular; IEA.

GO; GO:0005179; F:hormone activity; IEA.

GO; GO:0005182; P:physiological processes; IE

InterPro; IPR004825; Ins/IGF/relax.

Pfam; PF00079; INSULINB.

SMART; SM00078; INGULINB.

SMART; SM00078; INGULINB.

SMART; SM00078; INGULINB.
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HSSP; P01343; 2GF1.

GO; GO:0005576; C:extracellular; IEA.

GO; GO:0005179; F:bormone activity; IEA.

GO; GO:0005179; F:bormone activity; IEA.

GO; GO:0007582; P:physiological processes; IE
InterPro; IPRO04825; Ins//GF/relax.

PÉAM; PP00049; Insulin; 1.

PRINTS; PR00277; INSULINB.

SMART; SM00078; I1GF; 1.

SMART; SM00078; I1GF; 1.

PROSITE; PS00262; INSULIN; 1.
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01-MAR-2003
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Eukaryota; Metazoa;
Mammalia; Eutheria;
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[2]
                                                                                                                                                                                                                                                                                                                                                                                         the RIKEN Genome Exploration Research "Analysis of the mouse transcriptome k
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRAIN=C57BL/6J; TISSUE=Cerebellum; MEDLINE=22354683; PubMed=12466851;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A. MEDLINE=91103966; PubMed=1368571;
                                                     SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=10090;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             54:1599-1601(1990)
                                               INSULIN; 1.
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Rodentia;
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95.3%;
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Pred. No. 4.8e-45;
0; Mismatches 4
  Score
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Maximum DB
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Listing first 45 summaries
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Perfect score:
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1: sp_archea:*

2: sp_bacteria:*

3: sp_fungi:*

4: sp_human:*
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    8:
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599
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sp_vrodent:*
sp_virus:*
sp_vertebrate:*
sp_unclassified:*
sp_rvirus:*
sp_bacteriap:*
sp_archeap:*
                                                                                                                                                                                                                                                                                                                                                                                                                                             sp_organelle:*
sp_phage:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sp_mhc:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sp_invertebrate:*
                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     mammal:*
                                                                                                                                                                                                                         DB
                                                  1 Q8CARO

23429

1 P97899

1 Q8C4U6

Q9NP10

Q14620

Q14620

Q1467

Q91167

P79167

P79167

P79167

P79167

Q913380

Q91476
                                                                                                                                                                                                                                                             SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1017041
OBCARTO mus musculu
Q13429 homo sapien
P97889 rattus sp.
OBC446 mus musculu
Q9np10 homo sapien
Q14620 homo sapien
Q9n1c1 bos taurus
P79167 equus cabal
O93380 meleagris s
Q91230 oncorhynchu
Q91476 salmo salar
Q9ibi0 cyprinus ca
Q91475 salmo salar
Q91162 oncorhynchu
P81268 oncorhynchu
P81268 oncorhynchu
                                                                                                                                                                                                                      Description
```

tilapia s	073721	13	215		255.5	45
ervus elap	Q28236	σ	57	. 4		44
squalus a	•	<u>1</u> 3	126		279.5	43
apreolu	Q9N1S6	σι	99	۲	310	42
002807 bubalus bub	002807	σ	69		325.5	41
myoxocepha	042336	13	184		326	40
acanthopaq	Q9YI57	13	185	·	332.5	39
morone	Q800M7	13	108		341	38
morone	$\overline{}$	13	108	σ.	341	37
morone	6W008Ö	13	108	<u>о</u>	341	36
morone chr	Q800N0	13	108		341	35
Q7t107 dicentrarch	110	13	104		341	34
oreochromi	982	13	182	.7	344	33
oreochromi	22	13	182	.7	344	32
carassius	Q9Y182	13	161	.7	344	31
	042289	13	182	.7	345	30
paralicht	2XS460	13	186	.7	347	29
owk2	Q9PWK2	13	161	7	347	28
00d5 megalobram	\circ	13	161	œ	4	27
ar6 m	Q98SR6	13	161	ω.	348	26
3607 p	093607	13	159	ω.	351	25
91914 c	Q9I9I4	13	117	00	351	24
57436	057436	13	185	œ	351.5	23
tia7 p	Q7T1A7	13	186	φ	354	22
800y5 s	2800Y5	13	186	ø	tπ	21
paralichth '	093527	13	186	φ	tл	20
90vv9 brachydan	6AA06Ö	13	161	9	CП	19
1231 oncorhync	1	13	149	60.1	360	18
Q91161 oncorhynchu	Q91161	13	116	0	G)	17

ALIGNMENTS

Query Match 84.3%; Score 505; DB 11; Length 165; Best Local Similarity 91.3%; Pred. No. 2.5e-52; Matches 95; Conservative 2; Mismatches 7; Indels 0; Gaps	DR GO; GO:0005179; F:hormone activity; IEA. DR GO; GO:0007582; P:physiological processes; IEA. DR InterPro; IPR004825; Ins/IGF/relax. DR Pfam; PF00049; Insulin; 1. DR PRINTS; PR00277; INSULINB. DR SMART; SM00078; IIGF; 1. DR PROSITE; PS00262; INSULIN; 1. SQ SEQUENCE 165 AA; 18473 MW; 2CE0D3DA981C93F8 CRC64;	SEQUENCE FROM N. STRAIN=C57BL/6J; STRAIN=233468B MEDIINE=223546B The FANTON Conso the RIKEN Genome "Analysis of the 60,770 full-leng Nature 420:563-5 EMBL; AKO38119 MGD; MGI:2444166 GO; GO:0005576;	CAR
0			

1 GPETLCGAELVDALQFVCGPRGFYFNKPTVYGSSIRRAPQTGIVDECCFRSCDLRRLEMY 60